



## **DX8000 Series Digital Video Recorder**



**Client Application Software**

**C626M-C (5/06)**



# Contents

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Client Applications	
Welcome to DX8000 Client Application	15
DX8000 Client Emergency Agent	15
DX8000 Viewer	15
DX8000 Mobile Client	15
DX8000 Web Client	15
Getting Started with DX8000 Client Software	16
Description of DX8000 Client Software	16
Recommended System Requirements	16
Windows XP Display Properties Configuration Requirements	16
Installing the Client Application	17
Setting Up Security Services	19
Enabling IPsec Security Services	19
Disabling IPsec Security Services	19
Starting the DX8000 Client Application	20
Before You Start DX8000 Client Software	20
Starting DX8000 Client Software	20
Automatic System Upgrade	20
Logging In to the Client Application	21
Changing the DX8000 Client Application Login Password	21
Enabling DirectDraw Video Hardware Acceleration	21
Connecting to DX8000 DVR Server Sites	22
Adding a DX8000 DVR Server to the Connection List	22
Adding a Site with a Known IP Address	22
Adding a Site with an Unknown IP Address	23
Deleting a DX8000 DVR Server	24
Editing DX8000 Server Information from Connection List	24
Working with Remote Sites	25
Connecting to a Remote Site	25
Automatically Connecting to a Remote Site	25
Logging In to a Remote Site	26
Logging Out of a Remote Site	26
Disconnecting from a Remote Site	26
Exiting the DX8000 Client Application	26
Understanding the DX8000 Application Window	27
Description of the DX8000 Main Window	27
DX8000 Menu Bar	30
File Menu	30
Edit Menu	30
View Menu	30
Export Menu	32
Favorite Menu	32
Help Menu	32
DX8000 Toolbar	33
Displaying the DX8000 Window from a Page	34
Description of Operating Modes	34
Understanding View Panes and Panels	34
Working with View Pane and Panel	34
Configuring View Panels	35
Navigating View Panels	35
Navigating Between View Panels	35
Expanding and Collapsing View Pane	37
Manually Cycling Through Hidden View Panels	37
Automatically Cycling Through View Windows	37
Starting an Automatic Cycle View Mode	38

Stopping an Automatic Cycle View Sequence .....	38
Selecting User Groups to Set the Cycle View Dwell Time .....	38
Selecting the Cycle View Dwell Time .....	38
Working with the Site tree .....	39
Assigning Cameras to View Panes .....	40
Setting Up Links .....	40
Manually Turning a Relay On and Off .....	41
Linking Alarm Inputs to a Camera .....	41
Linking a Relay Output to a Camera .....	41
Linking Relay Outputs to Alarm Inputs .....	41
Removing Links .....	42
Removing a Linked Alarm Input from a Camera .....	42
Removing a Linked Relay Output from a Camera .....	42
Removing a Linked Relay Output from an Alarm Input .....	42
Working in Live View Mode .....	43
Assigning Cameras to View Panes .....	43
Setting Up Favorites .....	43
Adding a Camera View to Favorites .....	43
Organizing Favorites in Folders .....	44
Creating a Favorites Folder .....	44
Organizing Favorites in Folders .....	45
Live View On-Screen Display (OSD) .....	46
Customizing the On-Screen Display (OSD) .....	47
Instant Recording .....	47
Enabling and Disabling Instant Recording .....	47
Enabling Instant Recording .....	48
Disabling Instant Recording .....	48
Adding Instant Recording to OSD .....	48
Starting and Stopping Instant Recording .....	48
Starting Instant Recording .....	49
Stopping Instant Recording .....	49
Operating the On-Screen Pan, Tilt, and Zoom (PTZ) Controls .....	49
Operating the PTZ Controls .....	49
Adjusting the Camera Lens .....	51
Adjusting the Camera Zoom .....	52
Using PC Keyboard Shortcuts to Operate PTZ and Lens Functions .....	53
PTZ Presets .....	54
Programming a Preset .....	54
Activating a Preset .....	55
Clearing a Preset .....	56
PTZ Patterns .....	56
Programming a Pattern .....	57
Activating a Pattern .....	58
Clearing a Pattern .....	58
Accessing Programming Features of Remote Cameras .....	59
Using the PTZ OSD Menu Control .....	59
Accessing a Remote Camera Programming Menu .....	60
Sending Auxiliary Commands to a Device .....	62
Configuring Preset Tours .....	63
Programming a Preset Tour .....	63
Accessing a Preset Tour Group .....	63
Adding Presets to a Tour .....	64
Deleting Presets from a Tour .....	65
Activating a Preset Tour .....	66
Deactivating a Preset Tour .....	66
Working in Playback Mode .....	67
Accessing Playback Mode .....	67
Assigning Cameras to View Panels .....	67
Playback On-Screen Display (OSD) .....	67
Playback Controls .....	68



Playback Timeline .....	70
Playing Back Video by Time .....	71
Starting Playback from a Specific Point in Time .....	71
Understanding Instant Playback .....	71
Playing Back Video by Event .....	72
Operating Playback Digital Zoom .....	73
Zoom Using the Digital Zoom Control .....	73
Zoom Using the Mouse .....	74
Panning a Zoomed Image .....	75
Working in Search Mode .....	76
Search Window .....	77
Displaying a Deinterlaced Image in the Search Mode .....	79
Index Video Search .....	79
Thumbnail Video Search .....	80
POS Search .....	82
Understanding the POS Search View .....	83
Searching and Displaying POS Data by Device Name .....	86
Searching POS Data by Device Name .....	86
Displaying POS Data Discovered by Device Name .....	87
Searching by POS Transaction Number .....	88
Searching for All Transactions with Exceptions .....	89
Searching for Transactions that Satisfy Specific Exceptions .....	90
Searching for Transactions by Line Item .....	91
Searching for Transactions by Action Code .....	92
Pixel Video Search .....	93
Searching Video Based on Changes in Screen Pixels .....	93
Viewing a Video Thumbnail .....	95
Working with Special View and Search Methods .....	96
Viewing Video in the Deinterlaced Mode .....	96
Viewing Live and Playback Video Simultaneously .....	96
Exporting Video .....	97
Exporting Bookmarked Video Regions .....	97
Creating Bookmarks .....	98
Clearing Bookmarks .....	98
Clearing a Single Bookmark .....	98
Clearing All Bookmarks .....	99
Inserting and Removing a USB Flash Drive .....	99
Installing a USB Flash Drive .....	99
Removing a USB Flash Drive .....	99
Enabling the Deinterlacing Filter .....	99
Mapping and Disconnecting a Network Drive .....	100
Mapping a Network Drive .....	100
Disconnecting a Network Drive .....	100
Performing the Export .....	101
Starting an Export Process .....	101
Changing a Bookmarked Time Range .....	103
Assigning a Custom Export Video File Name .....	103
Selecting the Export Format .....	104
Exporting a Sequence of Still Images .....	105
Finalizing an Export Process .....	105
Stopping an Export While in Process .....	106
Retaining Video When Stopping an Export Process .....	106
Deleting Video Data When Stopping an Export Process .....	106
Working with DX8000 Backed-Up Video .....	106
Printing Images .....	107
Printing Images in the Deinterlaced Mode .....	107
Setting Up the DX8000 .....	108
Accessing the Setup Mode .....	108

Understanding the Setup Dialog Box .....	109
Camera Setup .....	111
Basic Camera Setup .....	111
Motion Detection Setup .....	113
Audio Setup .....	114
Listening to Live Audio .....	115
Listening to Live Audio at a Local Server .....	115
Listening to Live Audio from a Remote DX8000 System .....	115
Configuring Video Loss Detection .....	116
Applying Settings to all Cameras .....	117
Link Setup .....	117
Configuring Basic Relay and Alarm Settings .....	117
Understanding How Relays and Alarms React to a Power Outage .....	117
Configuring DX8000 Basic Relay and Alarm Settings .....	117
Configuring Basic Relay Operating Properties .....	118
Configuring Basic Alarm Input Operating Properties .....	118
Linking Relay Outputs to External Events .....	119
Linking Relay Outputs to Motion Events .....	119
Linking Relay Outputs to Alarm Events .....	120
Linking Relay Outputs to ATM/POS Events .....	120
Linking Relay Outputs to Video Loss Events .....	121
Linking Cameras to Record in Response to External Events .....	121
Linking Cameras to Record in Response to Motion Events .....	122
Linking Cameras to Record in Response to Alarm Events .....	122
Linking Cameras to Record in Response to ATM/POS Events .....	123
Linking Cameras to Record in Response to Video Loss Events .....	123
Linking PTZ Presets and Patterns to External Events .....	124
Linking PTZ Presets and Patterns to Motion Events .....	124
Linking PTZ Presets and Patterns to Alarm Events .....	125
Linking Presets and Patterns to ATM/POS Events .....	126
Linking Presets and Patterns to Video Loss Events .....	127
Schedule Setup .....	128
Accessing the Schedule .....	128
Setting Up the Camera Recording Mode .....	130
Scheduling a Record Mode .....	130
Clearing a Scheduled Recording .....	131
Clearing Recording Times for a Specific Record Mode .....	131
Clearing Recording Times for All Record Modes .....	132
Creating Yearly Recording Schedules .....	132
Creating a Yearly Recording Schedule .....	132
Scheduling Individual Days Using the Year View .....	133
Copying Schedule Attributes to a Different Day .....	133
Creating Monthly or Multiple-Day Recording Schedules .....	134
Creating Multiple-Day Schedules .....	134
Creating Single-Day Schedules .....	135
Working with Single-Day Schedules .....	135
Copying and Applying Schedule Attributes .....	136
Editing Schedules .....	137
Changing an Existing Schedule Profile .....	137
Deleting an Existing Schedule Profile .....	138
Working with Custom Camera Settings .....	139
Configuring Custom Camera Settings .....	139
Examples of Custom Camera Settings .....	140
Configuring the Frame Rate .....	141
Accessing the Frame Rate Configuration Dialog Box .....	141
Setting the Basic Frame Rate .....	141
Setting the Advanced Frame Rate .....	142
Understanding the DX8000 Frame Rate Calculations .....	144
Setting Up Advanced Relay Output .....	144
Configuring Advanced Motion-Activated Relay Output .....	145
Configuring Advanced Alarm-Activated Relay Output .....	146
Configuring Advanced ATM/POS-Activated Relay Output .....	147

Configuring Advanced Video Loss-Activated Relay Output .....	148
Setting Up Network Properties .....	149
Data Backup Setup .....	149
Viewing and Searching Backed-Up Video .....	149
User Setup .....	151
Accessing the User Page .....	151
Built-in User Accounts .....	153
Definition of User Access Levels .....	153
Definition of Camera Security Access .....	154
Adding New Users .....	154
Modifying User Properties .....	155
Changing User Passwords .....	155
Changing a User's Group Affiliation .....	156
Deleting Existing Users .....	156
Setting Login Timeout .....	156
Assigning Automatic Login Permission to a User .....	157
Site Setup .....	157
System Setup .....	158
Accessing the System Page .....	158
Working with the Export Feature .....	158
Exporting Current DVR Settings .....	158
Using the Edit Menu to Perform an Export .....	159
Working with the Import Feature .....	160
Importing DVR Settings .....	160
Using the Edit Menu to Perform an Import .....	160
Using System Logs .....	161
Viewing a Log File .....	161
Exporting Log Information .....	162
External Monitor Setup .....	163
Emergency Notification Setup .....	163
Accessing the Emergency Agent Notification Setup .....	163
Adding Client Emergency Agents to be Notified .....	163
Changing Client Emergency Agent Properties .....	164
Deleting Clients from the Notification List .....	164
Linking Cameras to Client Emergency Agents .....	164
Setting Server Event Transmission Time .....	165
Emergency E-Mail Notification Setup .....	166
Accessing the Emergency E-Mail Notification Setup .....	166
Configuring Emergency E-Mail Notification .....	166
Enabling or Disabling E-Mail Notification .....	166
Setting Up the E-Mail Server .....	167
Testing E-Mail Notification .....	168
Setting Up the Time Period .....	169
Configuring E-Mail Notification Frequency .....	169
Setting the Time of Day .....	169
Sending E-Mail Notifications In Response to Motion Events .....	170
Sending E-Mail Notifications In Response to Alarm Events .....	170
Sending E-Mail Notifications In Response to Video Loss Events .....	171
Setting Up E-Mail Notification Groups .....	171
Adding an E-Mail Notification Group .....	171
Modifying an E-Mail Group Name .....	172
Deleting an E-Mail Group .....	172
Adding Members to an E-Mail Group .....	172
Deleting Members from an E-Mail Group .....	173
Modifying E-Mail Group Member Attributes .....	174
Sending E-Mail Notifications .....	175
Sending E-Mail Notifications to Individuals .....	175
Sending E-Mail Notifications to Groups .....	176
Setting Up and Using the Client Emergency Agent .....	177
Recommended System Requirements .....	177
Installing the Client Emergency Agent Application .....	178

Enabling IPsec Security Services .....	180
Disabling IPsec Security Services .....	180
Before You Begin .....	181
Starting the Client Emergency Agent .....	181
Real-Time Event Monitoring .....	182
Setting the Client Emergency Agent Listen Port .....	182
Viewing Previously Logged Events .....	183
Shutting Down the Client Emergency Agent .....	183
Setting Up and Using the DX8000 Viewer .....	184
Recommended System Requirements .....	184
DX8000 Viewer Software Installation .....	185
Starting the DX8000 Viewer .....	186
Viewing Media files .....	188
Playing Video .....	189
Saving Snapshots .....	189
Printing Images .....	189
Working with the Playlist .....	190
Accessing the Playlist .....	190
Adding Files to the Current List .....	191
Removing Media Files from the Current List .....	191
Playing a File from the Playlist .....	191
Loading a Previously Saved Playlist .....	191
Saving the Current Playlist .....	191
Working with Viewer Configuration Tools .....	192
Accessing Viewer Configuration Tools .....	192
Adjusting Picture Quality .....	192
Changing the Snapshot Directory .....	193
Changing the Language .....	193
Enabling/Disabling Filtered Image Display .....	193
Verifying the Watermark .....	193
Exiting the DX8000 Viewer Application .....	193
Setting Up and Using the DX8000 Mobile Client .....	194
Mobile (PDA) Client Recommended System Requirements .....	194
Mobile (PDA) Client Software Installation .....	195
Connecting Mobile Clients to a DX8000 Series DVR .....	197
Starting the DX8000 Mobile Client .....	198
Exiting the DX8000 Mobile Client .....	200
Setting Up User Security .....	200
Setting Up an Initial Password .....	200
Changing an Existing Password .....	201
Logging in to the Mobile Client application .....	202
Working with Sites and Groups .....	203
Creating Site Groups .....	203
Editing an Existing Group .....	205
Deleting a Group .....	206
Adding a DX8000 Site to a Group .....	207
Editing a DX8000 Site .....	208
Deleting a DX8000 Site .....	209
Connecting to a DX8000 Site .....	210
Disconnecting From a Server Site .....	210
Viewing Live Video .....	211
Customizing the View Screen .....	212
Changing Screen Size .....	212
Full-Screen Mode .....	213
Using the DX8000 Web Client .....	214
Description .....	214
System Requirements .....	214
Installation .....	215
Starting the DX8000 Web Client .....	216

Exiting the DX8000 Web Client .....	217
Screen Layout .....	217
Web Client Configuration .....	219
Working with the Connection List .....	219
Adding Sites to the Connection List .....	219
Adding a DX8000 Site with a Known IP Address .....	219
Adding a DX8000 Site with a Unknown IP Address .....	220
Grouping DX8000 Servers in the Connection List .....	221
Adding a Group to the Connection List .....	221
Adding a DX8000 Server with a Known IP Address to a Group .....	222
Adding a DX8000 Server with an Unknown IP Address to a Group .....	223
Modifying a Connection List .....	224
Deleting a DX8000 DVR Server from the Connection List .....	224
Editing a DX8000 Server's Information in the Connection list .....	225
Working with Remote Sites .....	226
Connecting to a Remote Site .....	226
Logging In to a Remote Site .....	226
Logging Out of a Remote Site .....	227
Disconnecting from a Remote Site .....	227
Viewing Live Video .....	228
Configuring View Panels .....	228
Assigning Cameras to View Panels .....	229
Operating the On-Screen Pan, Tilt, and Zoom (PTZ) Controls .....	230
Operating PTZ Controls .....	230
PTZ Presets .....	231
Programming a Preset .....	231
Activating a Preset .....	233
Clearing a Preset .....	234
PTZ Patterns .....	234
Programming a Pattern .....	234
Activating a Pattern .....	235
Clearing a Pattern .....	235
Accessing Programming Features of Remote Cameras .....	236

# List of Illustrations

1	Resource CD Screen: PC Client Installation Option	17
2	DX8000 Security Setup Dialog Box	17
3	DX8000 PC Client Setup Dialog Box	18
4	Client Software License Agreement Dialog Box	18
5	Client Select Installation Folder Dialog Box	18
6	Client Installation Finalization Dialog Box	19
7	Enabling IPSec Security for the Client Application	19
8	Enabling IPSec Security for the Client Application	19
9	DX8000 Client Icon on Desktop	20
10	Client Upgrade Notice	20
11	DX8000 Client Password Dialog Box	21
12	Server Information Dialog Box	23
13	DX8000 Scan Dialog Box	23
14	Editing Server Information	24
15	DX8000 Client Password Dialog Box	25
16	DX8000 Client Application Main Window	28
17	View Panes and Panel for 4-Division Display	35
18	Example of Single, 4, 9, and 16 Division View Panels	36
19	View Panel Identifier	37
20	Site tree Parts	39
21	Add to Favorites Dialog Box	43
22	Favorites Menu List	44
23	Organize Favorites Dialog Box	44
24	Organize Favorites Dialog Box and List of Favorites and Folders	45
25	Move to Folders Dialog Box	45
26	Live View OSD Pane	46
27	Client OSD Menu Options	47
28	Activating Instant Recording	48
29	On-Screen PTZ Control	50
30	On-Screen PTZ Movement	50
31	PTZ Keypad with Camera Lens Controls	51
32	Mouse Wheel Zoom	52
33	Creating a Preset	54
34	Programming a Preset	55
35	Activating a Preset	55
36	Clearing a Preset	56
37	Programming a Pattern	57
38	Activating a Pattern	58
39	Clearing a Pattern	58
40	PTZ OSD Menu	59
41	PTZ Control Panel	60
42	Camera Setup Menu	61
43	Auxiliary (Aux) Button	62
44	Keypad Buttons 1–4 are Available	62
45	Preset Tour Dialog Box	63
46	Adding Preset to Tour	64
47	Deleting Preset from Tour	65
48	Activating a Preset Tour	66
49	Playback OSD	67
50	Playback Controls	68
51	Playback Speed and Volume Controls	69
52	Playback Timeline	70
53	Date Selection Drop-down Box	71
54	Event Type Drop-down Box	72
55	Playback Digital Zoom Control	73
56	Zoom In Using Mouse	75
57	Zoom Out Using Mouse	75
58	Panning Zoomed Video with the Mouse	75
59	DX8000 Client Search Mode Window	77
60	DX8000 Client Index Search Screen	80

61	DX8000 Client Thumbnail Search Screen	81
62	POS Search View	83
63	POS Transaction Search by Device Name	86
64	Display a POS Transaction Search by Device Name	87
65	Searching an POS Event by Transaction Number	88
66	Searching for Transaction with Exception Only Events	89
67	Transactions that Satisfy Specific Exception Filters	90
68	Transactions that Contain a Unique Line Item	92
69	Searching Transactions by Action Code	93
70	Pixel Search Screen	94
71	Thumbnail Images Marking Pixel Changes	95
72	Bookmark Controls	97
73	Setting a Starting Bookmark	98
74	Removing a Single Bookmark	98
75	Enabling the Deinterfacing Filter from the Export Video Dialog Box	99
76	Export Video Dialog Box	100
77	Exporting Selected Video	102
78	Export Time Range	103
79	Default File Names	103
80	Renaming Export Time Ranges	104
81	Still Image Export Formats	105
82	Real Time Versus Non-Real Time Export	106
83	Parts of the DX8000 Setup Dialog Box	109
84	Camera Page	112
85	Camera Motion Detection Setup	113
86	Video Loss Detection	116
87	Relay and Alarm Settings Page: Relay Settings Section	118
88	Relay and Alarm Settings Page: Alarm Settings Section	119
89	Event-Relay Link Settings: Motion Detection Link Settings Section	119
90	Event-Relay Link Settings: Alarm Link Settings Section	120
91	Event-Relay Link Settings: ATM/POS Link Settings Section	120
92	Event-Relay Link Settings: Video-Loss Link Settings Section	121
93	Event-Relay Link Settings: Video-Loss Link Settings Section	122
94	Event-Recording Link Settings: Alarm Record Link Settings Section	122
95	Event-Recording Link Settings: ATM/POS Record Link Settings Section	123
96	Event-Recording Link Settings: Video-Loss Record Link Settings Section	123
97	Event-PTZ Link Settings: Linking Presets and Patterns to Motion Events	124
98	Event-PTZ Link Settings: Linking Presets and Patterns to Alarm Events	125
99	Event-PTZ Link Settings: Linking Presets and Patterns to ATM/POS Events	126
100	Event-PTZ Link Settings: Linking Presets and Patterns to Video Loss Events	127
101	Schedule Page	128
102	Filling In Recording Blocks in Schedule Grid	130
103	Clearing Recording Times for a Specific Record Mode	131
104	Clearing Recording Times for All Record Modes	132
105	Calendar Date Selection	133
106	Year View Calendar Quick-Menu	133
107	Month View Page: Multi-Day Schedule	134
108	Month View Page: Single-Day Schedule	136
109	Month View Calendar Quick-Menu	136
110	Month View Page	137
111	Month View Page	138
112	Custom Camera Settings Panel	139
113	Examples of Custom Camera Settings	140
114	Frame Rate Configuration Dialog Box	142
115	Advanced Frame Rate Configuration Screen	143
116	Example of Frame Rate Capacity	144
117	Linking Relays to Motion Detection	145
118	Linking Relays to Alarms	146
119	Linking Relays to ATM/POS	147
120	Linking Relays to Video Loss	148
121	Backup Search Screen	149
122	Viewing Backed-Up Data	150
123	User Page	151

124	Add New User Dialog Box	155
125	Exporting DVR Settings	159
126	Import DX8000Configuration	160
127	Viewing a Log File	161
128	Log View Dialog Box	161
129	Exporting a Log File	162
130	Basic E-Mail Notification Setup	167
131	E-Mail Test	168
132	Add User to E-Mail Group	173
133	Remove User from E-mail Group	173
134	Modify Member Attributes	174
135	Sending E-Mails to Individuals	175
136	Sending E-Mails to Groups	176
137	Resource CD Screen: Emergency Agent Installation Option	178
138	DX8000 Security Setup Dialog Box	178
139	DX8000 Emergency Agent Setup Dialog Box	179
140	Emergency Agent Software License Agreement Dialog Box	179
141	Client Select Installation Folder Dialog Box	179
142	Client Installation Finalization Dialog Box	180
143	Enabling IPSec Security for the Emergency Agent Application	180
144	Disabling IPSec Security for the Emergency Agent Application	180
145	Emergency Agent Icon	181
146	Client Emergency Agent Dialog Box	181
147	Client Emergency Agent Pop-up Window	182
148	Emergency Agent Listen Port Dialog Box	182
149	Client Emergency Agent Server List and Log	183
150	Resource CD Screen: DX8000 Viewer Option	185
151	DX8000 Viewer Icon	186
152	DX8000 Viewer Main Screen	186
153	Open Dialog Box	188
154	View Panel Image	188
155	Viewer Playlist	190
156	Adding Files to a Play List	191
157	Viewer Configuration Tools	192
158	PDA-to-PC Connection	195
159	Resource CD Screen: Mobile Client Installation Option	195
160	Pocket PC Installation Dialog Box	196
161	Mobile Client License Agreement Dialog Box	196
162	Installing Applications Dialog Box	196
163	Application Downloading Complete Dialog Box	196
164	PDA-to-DVR Wireless Networking Example	197
165	Main Screen	198
166	Exiting the Program	200
167	DX8000 Menu Security Option	200
168	Entering a New Password	201
169	Security Menu Option	201
170	Changing a Password	202
171	Mobile Client Log In Prompt	202
172	Connect Menu Option	203
173	Connect Screen	203
174	Creating a New Group	204
175	Entering a Name	204
176	Finalizing New Group Creation	204
177	Editing a Group	205
178	Editing Group Information	205
179	Deleting a Group	206
180	Finalizing Group Deletion	206
181	Adding a New DX8000 Site	207
182	Site Setup Screen	207
183	Entering New Site Information	208
184	New Site in Connect Window	208
185	Selecting a Site to Edit	208
186	Changing a Site's Name and IP Address	209



187	Deleting a Site .....	209
188	Connecting to a DVR Site .....	210
189	Disconnecting from a Site .....	210
190	Viewing Live Video from the Main Screen .....	211
191	Live Menu with Start and Stop Options .....	211
192	DX8000 Menu and View Size Option .....	212
193	Minimum Screen Size .....	212
194	Medium Screen Size .....	212
195	Maximum Screen Size .....	212
196	Full-Screen View .....	213
197	Live Menu and Full-Screen Option .....	213
198	ActiveX Control Installation Dialog Box .....	215
199	Entering a DX8000 Server User Name and Password .....	216
200	Web Browser File Menu .....	217
201	Web Client Screen Layout .....	217
202	Connection List Dialog Box .....	219
203	Server Information Dialog Box .....	219
204	Connection List Dialog Box .....	220
205	DX8000 Scan Dialog Box .....	220
206	Connection List Dialog Box .....	221
207	Connection List Dialog Box .....	222
208	Server Information Dialog Box .....	222
209	Connection List Dialog Box .....	223
210	DX8000 Scan Dialog Box .....	223
211	Deleting a Site from the Connection List .....	224
212	Editing a Site from the Connection List .....	225
213	Editing Server Information .....	225
214	Remote Site Connection Quick-Menu .....	226
215	Selecting a Site .....	226
216	User Log-in Dialog Box .....	226
217	Quick-Menu Disconnect Option .....	227
218	Dragging a Camera to a Web Client View Panel .....	229
219	Web Client On-Screen PTZ .....	230
220	On-Screen PTZ Movement .....	230
221	Web Client PTZ Lens Controls .....	231
222	Web View and PTZ Control Panel .....	232
223	Moving to a Preset Using Web Client .....	232
224	Programming a Preset Using Web Client .....	233
225	Activating a Preset Using Web Client .....	233
226	Clearing a Preset Using Web Client .....	234
227	Programming a Pattern Using Web Client .....	235
228	Activating a Pattern Using Web Client .....	235
229	Clearing a Pattern Using Web Client .....	236
230	Web Client View Panels .....	236
231	PTZ Control Panel Using Web Client .....	237
232	Camera Setup Menu .....	237

# List of Tables

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A	Parts of the DX8000 Application Window	28
B	File Menu Commands	30
C	Edit Menu Commands	30
D	View Menu Commands	31
E	Export Menu Commands	32
F	Favorite Menu Commands	32
G	DX8000 Help Menu Commands	32
H	DX8000 Toolbar Buttons	33
I	Operating Modes	34
J	View Panes Panel	35
K	How View Panels are Organized	36
L	View Panes and Panel	37
M	Site tree Parts	39
N	Parts of the Live View OSD Pane	46
O	Instant Recording Indicators	49
P	Standard PC Keyboard Functions for Controlling PTZ and Lens Functions	53
Q	Parts of the PTZ OSD Menu Control	59
R	Parts of the Playback Controls	68
S	Parts of the Playback Speed and Volume Controls	69
T	Parts of the Playback Timeline Control	70
U	Parts of the Digital Zoom Control	74
V	Parts of the DX8000 Window in Search Mode	78
W	Parts of the POS Search View	84
X	Bookmark Controls	97
Y	Available Backup Space	101
Z	Export Formats	104
AA	Parts of the DX8000 Setup Dialog Box	110
AB	Parts of the Schedule Page	129
AC	Record Modes	130
AD	Camera Settings for the Supported Recording Modes	140
AE	Resolution Values	142
AF	Frame Rate Capacity	144
AG	Motion-Activated Relay Settings	145
AH	Alarm-Activated Relay Settings	146
AI	ATM/POS-Activated Relay Settings	147
AJ	Video Loss-Activated Relay Settings	148
AK	Parts of the User Page	152
AL	User Group Access Rights	153
AM	Camera Security Levels	154
AN	Parts of the DX8000 Mobile Client Window	187
AO	DX8000 Viewer Toolbar Buttons	187
AP	Components of a DX8000 Mobile Client Network	197
AQ	Parts of the DX8000 Mobile Client Window	199
AR	Web Client Application Window Parts	218
AS	Web Client Division Buttons	228

# Client Application

You are reading DX8000 Series digital video recorder (DVR) documentation. The information in this documentation describes how to configure and use the DX8000 system in your security application.

For a brief description of the DX8000 server and client applications, refer to [Welcome to DX8000 Client Application](#) on page 13.

## WELCOME TO DX8000 CLIENT APPLICATION

Welcome to the DX8000 Client application. The DX8000 Client application is a high-performance, PC-based digital video recorder. It is an easy-to-operate digital video recorder (DVR) client application system. The DX8000 features multi-event recording, supporting continuous, motion detection, alarm, ATM/POS, and scheduled recording simultaneously. Models range from an eight-channel, single 80 GB hard disk drive (HDD) unit to a sixteen-channel unit with up to 1 TB of storage.

DX8000 software runs on two platforms:

- The DX8000 DVR server software runs on the DX8000 Series DVR.
- The DX8000 Client Application software runs on a personal computer (PC) and allows you to log in to and operate the DX8000 DVR server system from your local PC.

Fully implemented networking capabilities allow remote administration, playback, and export using the accompanying client application. Live viewing is supported on a variety of client platforms, including Internet browsers and pocket PC-compatible hand-held devices. Versatile high-speed search operations include time and date, event list, thumbnail, and intelligent pixel searching. Extensive scheduling features allow customizing of weekday, weekend, and special event recording.

The DX8000 provides a graphical user interface (GUI), allowing you quick and efficient access to all setup and operations functions. Scheduled or manual backup can be performed using a number of optical, external, and mapped network drive options.

An online Help system allows you quick access to information about how to configure and operate the DX8000 server and DX8000 client application.

The DX8000 also supports the following PC-based applications:

- [DX8000 Client Emergency Agent](#) on page 13
- [DX8000 Viewer](#) on page 13
- [DX8000 Mobile Client](#) on page 14
- [DX8000 Web Client](#) on page 14

## DX8000 CLIENT EMERGENCY AGENT

The DX8000 Client Emergency Agent works with networked DX8000 Client applications to alert users when one or more particular channels detect a motion and/or alarm event. The Emergency Agent runs on a networked client PC.

## DX8000 VIEWER

The DX8000 Viewer is capable of playing back a variety of video, still image, and audio media formats. It is designed to recognize and verify the digital watermark that is embedded in DX8000 Client application native video. Watermarking is used to authenticate the originality of a video file and to alert users of possible image tampering. The viewer application runs automatically each time a CD or DVD created by the DX8000's export feature is inserted into a Windows-based PC. The software can also be installed on a PC and opened independently when necessary.

## DX8000 MOBILE CLIENT

The DX8000 Mobile Client allow you to view live video remotely from multiple cameras and sites. Networking capabilities include local connection using wire-bound or wireless LAN technologies or remote connection using the Internet. The DX8000 Mobile Client software runs on a standard pocket PC-based Personal Digital Assistant (PDA) and can display a single channel of real-time video from any camera attached to any DX8000 DVR on the network. Features include hierarchical organization of multiple sites, built-in security through password protection, and an adjustable viewing area, including full-screen view.

## DX8000 WEB CLIENT

The DX8000 Web Client allows you to view live video and operate pan, tilt, and zoom (PTZ) features of cameras attached to DX8000 DVRs. Using a standard web browser, you can remotely monitor up to 16 cameras from up to five DX8000 DVR servers simultaneously. Each DX8000 DVR can support up to 100 web clients either internally within an organization or externally through the Internet.

# Getting Started with DX8000 Client Software

---

This section describes the system requirements, software installation, and working with security. This section includes the following topics:

- [Description of DX8000 Client Software](#) on page 23
- [Recommended System Requirements](#) on page 23
- [Windows XP Display Properties Configuration Requirements](#) on page 23
- [Installing the Client Application](#) on page 24
- [Enabling IPSec Security Services](#) on page 26
- [Disabling IPSec Security Services](#) on page 26

## DESCRIPTION OF DX8000 CLIENT SOFTWARE

The DX8000 Client application allows operators and DVRs to be geographically dispersed. Up to five DVR servers can be actively viewed from a single PC client. Up to 100 DX8000 server sites can be added to the Connection List. For more information on the connection list, refer to [Connecting to the DX8000 DVR Server Sites](#) on page 22.

The Client application facilitates

- Remote viewing of live and playback video
- Index, thumbnail, and pixel searching
- Exporting to a variety of media and formats
- Printing still images from video
- Limited remote control and administration

## RECOMMENDED SYSTEM REQUIREMENTS

Minimum recommended system requirements for the DX8000 Client, Emergency Agent, and DX8000 Viewer software applications include

- Processor: Intel® Pentium® III, or Pentium 4 with 800 MHz minimum processor speed
- Memory: 128 MB of RAM
- Video: AGP VGA card with minimum of 64 MB of video RAM, 1024 x 768 display resolution, 32-bit color, and DirectX® 8.1 or later hardware acceleration
- 500 MB of free disk space
- Monitor: SVGA or XGA with 1024 x 768 resolution, 32-bit color
- Operating system: Windows® 2000 (SP4) or Windows XP only

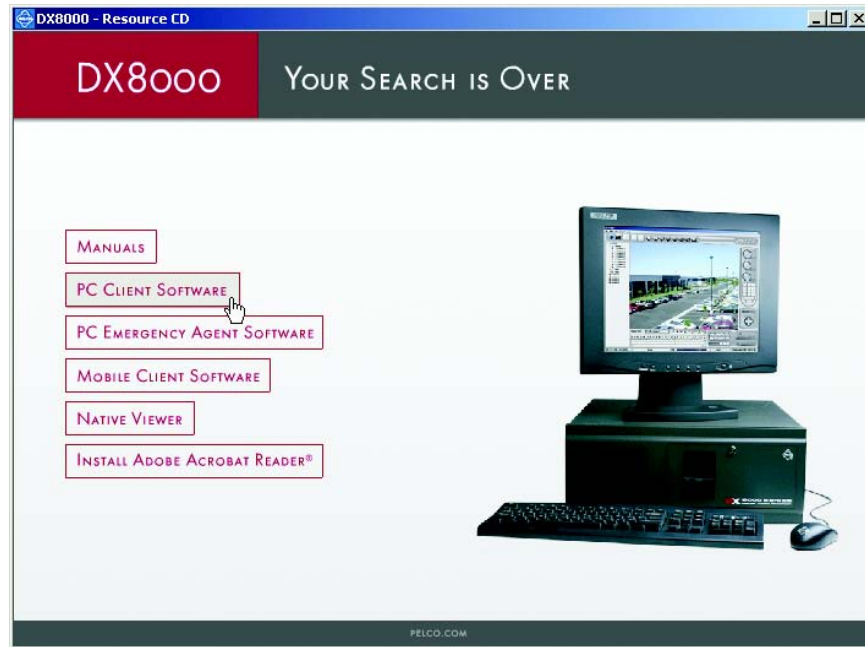
## WINDOWS XP DISPLAY PROPERTIES CONFIGURATION REQUIREMENTS

Pelco recommends that the fade effect and shadow option for menus and tooltips be deselected if they are selected. Any time these display effects are active, the CPU usage increases and impacts system performance.

## INSTALLING THE CLIENT APPLICATION

To install the Client application:

1. Start the Windows operating system.
2. Close all programs, including any antivirus software.
3. Insert the DX8000 Resource CD into the CD-ROM drive of your PC and wait for the DX8000 Resource CD screen to appear.



**Figure 1.** Resource CD Screen: PC Client Installation Option

4. Click PC Client Software. The DX8000 Security Setup dialog box opens.

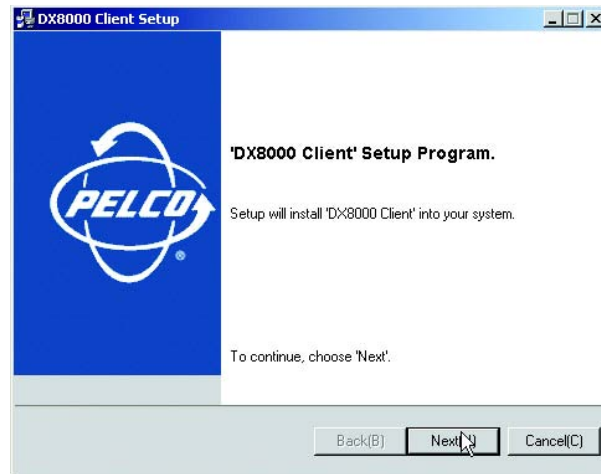


**Figure 2.** DX8000 Security Setup Dialog Box

5. Verify that the Install IPSec Configurations check box is selected.

**NOTE:** IPSec is a standard security protocol used by the DX8000 Series DVR and its clients to communicate safely over a network. Although IPSec security can be disabled at any time, it must be enabled to communicate with a DX8000 server.

6. Click Next. The DX8000 Client Setup dialog box opens.



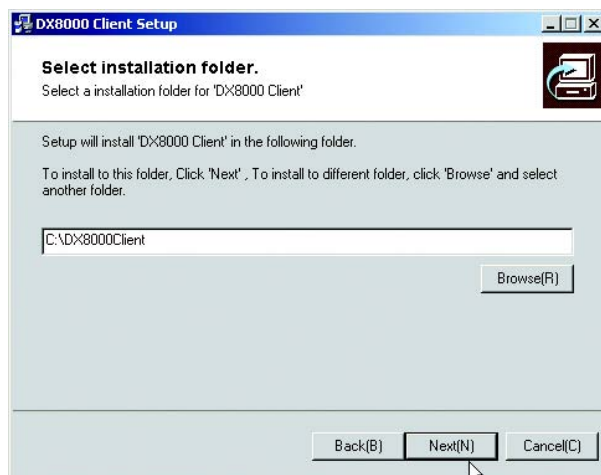
**Figure 3. DX8000 PC Client Setup Dialog Box**

7. Click Next. The Software License Agreement dialog box opens.



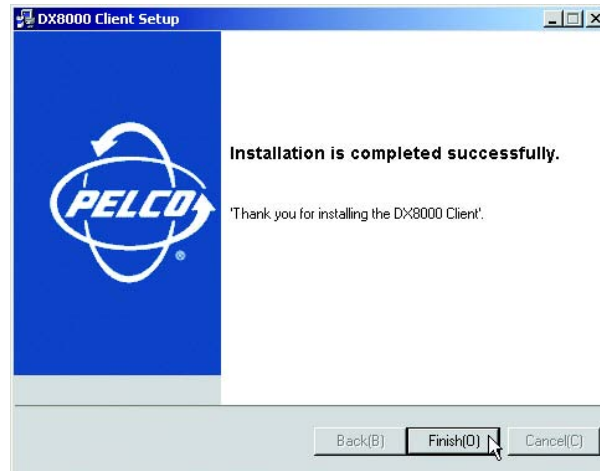
**Figure 4. Client Software License Agreement Dialog Box**

8. Read the license agreement and then select the "I accept this License Agreement" check box.
9. Click Next. The Select Installation Folder dialog box opens.



**Figure 5. Client Select Installation Folder Dialog Box**

10. Click Next to accept the default installation folder.



**Figure 6.** Client Installation Finalization Dialog Box

11. Click Finish to complete the installation process.

## SETTING UP SECURITY SERVICES

To communicate with a networked DX8000 Series DVR, IPSec security must be enabled on your computer. Disabling IPSec security services may hamper your PC's ability to communicate with DX8000 servers. Consult your system administrator before disabling IPSec security.

This section describes and includes how to setup IPSec security services and includes the following topics:

- [Enabling IPSec Security Services](#) on page 26
- [Disabling IPSec Security Services](#) on page 26

## ENABLING IPSEC SECURITY SERVICES

To enable IPSec security services:

1. From the Windows Start menu, choose Start > Programs > Manage IPSec Policy. The DX8000 IPSec Policy dialog box opens.



**Figure 7.** Enabling IPSec Security for the Client Application

2. Select the Enable DX8000 IPSec Policy check box if it is not already selected.

## DISABLING IPSEC SECURITY SERVICES

To disable IPSec security services:

1. From the Windows Start menu, choose Start > Programs > Manage IPSec Policy. The DX8000 IPSec Policy dialog box opens.



**Figure 8.** Enabling IPSec Security for the Client Application

2. De-select the Enable DX8000 IPSec Policy check box.

**NOTE:** Disabling IPSec security services may hamper your PC's ability to communicate with DX8000 servers. Consult your system administrator before disabling IPSec security.

## STARTING THE DX8000 CLIENT APPLICATION

This section describes and includes how to start the DX8000 Client application and includes the following topics:

- [Before You Start DX8000 Client Software](#) on page 27
- [Starting DX8000 Client Software](#) on page 27
- [Automatic System Upgrade](#) on page 27

### BEFORE YOU START DX8000 CLIENT SOFTWARE

Ensure that the following requirements have been met before starting the DX8000 Client application:

1. Make sure there is at least one active DX8000 Series DVR available on your network and your computer is set up to access it. Consult your network administrator for more information.
2. Make sure you have a valid, active account on the DX8000 DVR server you want to access. Consult your system administrator if you have not been assigned a DX8000 user name and password.
3. Make sure IPSec security services are installed and enabled on your PC. For more information, refer to [Installing the Client Application](#) on page 24 and [Enabling IPSec Security Services](#) on page 26.

### STARTING DX8000 CLIENT SOFTWARE

To avoid potential problems and conflicts within your computer's video subsystem, run only one instance of the Client application at a time.

To start the DX8000 Client application:

- ➔ Double-click the DX8000 Client icon on your desktop.

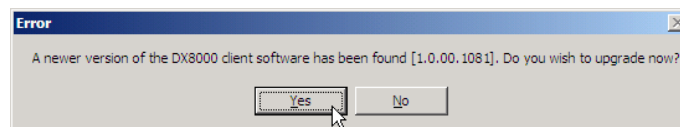
The following figure shows the DX8000 Client icon that is placed on the desktop.



**Figure 9.** DX8000 Client Icon on Desktop

### AUTOMATIC SYSTEM UPGRADE

Each time the Client application starts, the system will check the network to see if there is a newer version of the software available for upgrade. If a new version is found, a message box like the one in the following figure is displayed. When this message box appears, click Yes and the DX8000 Client software will automatically download the upgrade files, install them, and restart your computer.



**Figure 10.** Client Upgrade Notice

To check the current version of software:

- ➔ Choose Help > About.

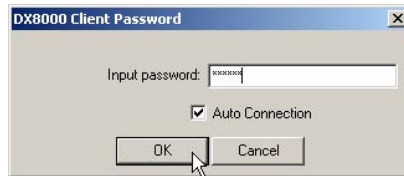


## Logging In to the Client Application

The default password for the DX8000 Client application is “000000.” You should change the client password immediately after logging in to the software for the first time. Follow the instructions below to change the DX8000 Client application login password.

To log in to the DX8000 Client:

1. Start the DXDX8000 Client application. The DX8000 Client Password dialog box opens.



**Figure 11.** DX8000 Client Password Dialog Box

2. Enter a valid password in the “Input password” text box.
3. Click OK. The DX8000 Client application starts.

Pelco recommends that you change the DX8000 Client application default password after you first log in to the DX8000 Client application. For information on changing the default password, refer to [Changing the DX8000 Client Application Login Password](#) on page 28.

## CHANGING THE DX8000 CLIENT APPLICATION LOGIN PASSWORD

To change the DX8000 Client password:

1. Wait while the software loads and the DX8000 Client application window opens.
2. From the DX8000 menu bar, choose File > Client Password. The DX8000 Client Password Setup dialog box opens.
3. Enter the old password in the “Old password” text box.
4. Enter a new password in the “New password” text box.
5. Re-enter the new password in the “Confirm” text box.
6. Click OK.

Remember the new client password or write it down and store it in a secure location.

## ENABLING DIRECTDRAW VIDEO HARDWARE ACCELERATION

If your computer’s video hardware supports Microsoft® DirectDraw® extensions, you can enable DirectDraw to enhance video performance. Enabling DirectDraw improves performance by delegating graphics acceleration duties to your PC’s video hardware instead of your computer’s main processor.

**⚠ WARNING:** Do not enable DirectDraw on the Client application unless you are certain that your hardware supports DirectDraw hardware acceleration. Check the documentation that came with your PC and your graphics card before enabling DirectDraw. Although some VGA cards support DirectDraw, not all are compatible with the DX8000 Client application. Check the Pelco Web site for a complete list of compatible VGA cards.

To enable DirectDraw hardware acceleration:

➔ Choose View > DirectX Draw.

# Connecting to DX8000 DVR Server Sites

---

This section describes how to connect to DX8000 DVR server sites and includes the following topics:

- [Adding a DX8000 DVR Server to the Connection List](#) on page 29
- [Deleting a DX8000 DVR Server](#) on page 31
- [Editing DX8000 Server Information from Connection List](#) on page 31
- [Working with Remote Sites](#) on page 32

## ADDING A DX8000 DVR SERVER TO THE CONNECTION LIST

The DX8000 Client application allows operators and DVRs to be geographically dispersed. Up to five DVR servers can be actively viewed from a single PC client. Up to 100 DX8000 server sites can be added to the Connection List.

The Client application facilitates the following:


- Auto Connection to servers at login
- Remote viewing of live and playback video
- Index, thumbnail, and pixel searching
- Exporting to a variety of media and formats
- Printing still images from video
- Limited remote control and administration

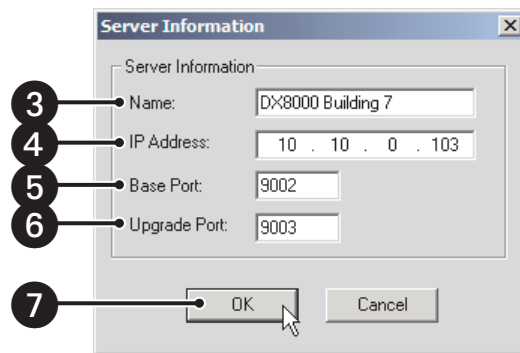
This section describes how to add a DX8000 server to the connection list and includes the following topics:

- [Adding a Site with a Known IP Address](#) on page 29
- [Adding a Site with an Unknown IP Address](#) on page 30

## ADDING A SITE WITH A KNOWN IP ADDRESS

To add a site to the Connection List when you know the site's IP address:


1. On the DX8000 toolbar, click . The Connection List dialog box opens.
2. Click Add. The Server Information dialog box opens.
3. Enter the name of the DX8000 Series DVR you wish to connect to.
4. Enter the IP address of the DVR.
5. If necessary, and after you have read the following information, enter a new base port number (9002 is the default).
  - Consult your network administrator before assigning or changing port numbers.
  - Make sure that the ports are not blocked internally but are protected from external threats by a firewall. Client and server ports must be identical.
6. If necessary enter a software upgrade port number (9003 is the default).
7. Click OK. The site appears in the Connection List.



## ADDING A SITE WITH AN UNKNOWN IP ADDRESS

- Each DVR must be attached to the same subnet.
- The first three octets of the IP address of the subnet must be known.
- The range of addresses used in the last octet of the subnet must be known.

To add a remote DVR site to the Connection List when you do not know the IP address of the site:


1. On the DX8000 toolbar, click . The Connection List dialog box opens.
2. Click DX8000 Scan. The DX8000 Scan dialog box opens.
3. Enter an IP address range to search for DVR sites.
  - a. Enter the first three octets of the IP range you wish to search; for example, 10.10.1.
  - b. Enter the beginning value for the search range in the fourth octet; for example, 001.
  - c. Enter the final value for the search range in the text box provided; for example, 254. Each octet of the IP address must be an integer between 1 and 255.
4. Click Find.
5. Select one or more DX8000 servers to add to the Site tree.
6. Click Add. The site appears in the Connection List.
7. Click OK when you return to the Connection List dialog box.

**Figure 13. DX8000 Scan Dialog Box**

## DELETING A DX8000 DVR SERVER

The DX8000 Client allows you to delete a DX8000 DVR server from the connection list.


To delete a DX8000 server from the connection list:

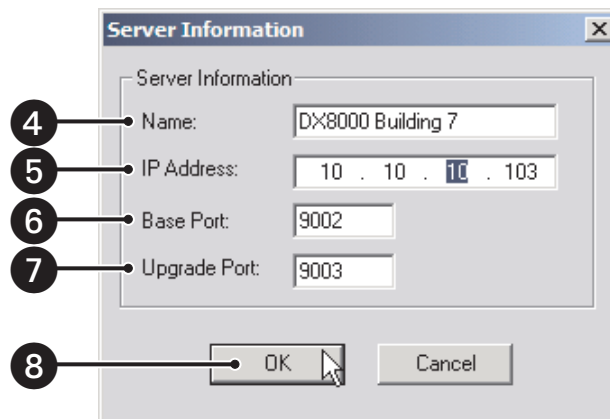
1. On the DX8000 toolbar, click . The Connection List dialog box opens.
2. Select the DX8000 Series DVR you wish to delete.
3. Click Delete. The site disappears from the Connection List.
4. Click OK.

## EDITING DX8000 SERVER INFORMATION FROM CONNECTION LIST

The DX8000 Client allows you to edit a DX8000 server's information from within the Connection List dialog box.

To edit a DX8000 server's information:

1. On the DX8000 toolbar, click . The Connection List dialog box opens.
2. Select the DX8000 Series DVR you wish to edit.
3. Click Edit. The Server Information dialog box opens.
4. Enter a new name for the server.
5. Enter a new IP address for the server.
6. If necessary, and after you have read the following information, enter a new base port number (9002 is the default).
  - Consult your network administrator before assigning or changing port numbers.
  - Make sure that the ports are not blocked internally, but are protected from external threats by a firewall. Client and server ports must be identical.
7. If necessary enter a software upgrade port number (9003 is the default).
8. Click OK. The site appears in the Connection List.
9. Click OK when you return to the Connection List dialog box.



**Figure 14.** Editing Server Information

## WORKING WITH REMOTE SITES

This section describes how to connect to and log in to a remote DX8000 server site. This section includes the following topics:

- [Connecting to a Remote Site](#) on page 32
- [Automatically Connecting to a Remote Site](#) on page 32
- [Logging In to a Remote Site](#) on page 33
- [Logging Out of a Remote Site](#) on page 33
- [Disconnecting from a Remote Site](#) on page 33

### CONNECTING TO A REMOTE SITE

You can view live and playback video and listen to live and playback audio from multiple DX8000 DVR servers simultaneously. The Client application can connect to remote sites automatically.

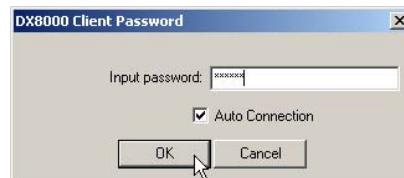
To connect to an active DX8000 server on the network:

1. Right-click the remote site name from the Site tree. The Remote Site Connect shortcut menu is displayed.
2. Select Connect from the shortcut menu.

### AUTOMATICALLY CONNECTING TO A REMOTE SITE

To automatically connect to a remote sites:

1. Start the DXDX8000 Client application. The DX8000 Client Password dialog box opens.



**Figure 15.** DX8000 Client Password Dialog Box

2. Click the Auto Connection check box.
3. Enter a valid password in the "Input password" text box.
4. Click OK. The DX8000 Client application starts and will automatically connect to the remote DX8000 servers on the network.

## LOGGING IN TO A REMOTE SITE

After a connection to a remote site has been established, to access the features of the DX8000 Series DVR, you must log in with a valid user name and password.

The DX8000 comes equipped with a built-in user account named "Guest." Each time the unit is turned on, the Guest account is automatically activated. In addition to the Guest account, there are four other user access levels, or groups, that can be configured on the DX8000. The Guest user is granted only limited access to the system. The other four access levels range from the Administrator group, with the most rights and privileges, to the Restricted group, with the least rights and privileges. For more information on the rights and permissions of the user group to which you have been assigned, refer to [Definition of User Access Levels](#) on page 196.

To operate and configure all but the most basic features of the DX8000, you must be assigned a user account other than Guest. If you have not been assigned a user account, contact your system administrator before proceeding.

To log in to a remote site:

1. Select a remote DX8000 Series DVR site from the Site tree.
2. From the DX8000 menu bar, choose File > User Log-in.  
You can also log in to a remote site by right-clicking its site name and then selecting User Log-In from the shortcut menu.
3. Enter a valid user name in the User Name field and a valid password in the Password field.
4. Click OK.

## LOGGING OUT OF A REMOTE SITE

You can only log out of one server at a time. If you are logged into multiple servers, you must log out of each server individually. Logging out of a remote DVR does not disconnect you from that system. Logging out will return you to the Guest account. To disconnect from a remote server, refer to [Disconnecting from a Remote Site](#) on page 33.

To log out of a remote DVR site:

1. Select the remote server from the Site tree.
2. From the DX8000 menu bar, choose File > User Log-Out.  
You can also log out of a remote DVR by right-clicking its site name from the Site tree and selecting User Log-Out from the quick-menu.

## DISCONNECTING FROM A REMOTE SITE

To terminate a connection with a remote DX8000 server:

1. Right-click the name of the remote site from the Site tree.
2. Select Disconnect from the quick-menu.

## EXITING THE DX8000 CLIENT APPLICATION

To exit the DX8000 Client application and return to the Windows operating system:

- ➔ From the DX8000 Client menu bar, choose File > Exit.

# Understanding the DX8000 Application Window

---

This section describes the DX8000 application window and its operation. The application window is the central control center from where you have access to the DX8000 features and functions.

- View both live and recorded video
- Exit to the Windows environment
- Access DX8000 setup features
- Control camera pan, tilt, and zoom functions
- Select cameras for viewing and recording
- Specify playback date and time
- Access playback controls

This section includes the following topics:

- [Description of the DX8000 Main Window](#) on page 34
- [Understanding View Panes and Panels](#) on page 44
- [Working with the Site tree](#) on page 49

## DESCRIPTION OF THE DX8000 MAIN WINDOW

The application window is displayed after the DX8000 starts. The main window provides access to both live and recorded video.

This section describes the DX8000 main window and includes the following topics:

- [DX8000 Menu Bar](#) on page 38
- [DX8000 Toolbar](#) on page 42
- [Displaying the DX8000 Window from a Page](#) on page 44
- [Description of Operating Modes](#) on page 44
- [Switching Between Standard and Extended Panel Views](#) on page 44

The following figure shows the parts of the DX8000 main window.



**Figure 16.** DX8000 Client Application Main Window

The following table describes the parts of the DX8000 application window.

**Table A.** Parts of the DX8000 Application Window

Item	Part	Description
1	Title Bar	Displays the DX8000 application title.
2	Menu Bar	Provides access to drop-down menus.
3	Toolbar	Provides access to display, setup, export, and search tools.
4	Site tree	Displays top-down, hierarchical management of DX8000 resources, such as servers, cameras, alarms, and relays.
5	View Panels	<p>Display live and playback video from attached cameras. A view panel consists of view panes.</p> <ul style="list-style-type: none"> <li><b>View pane:</b> A view pane is a division of a view panel. Each view pane contains only a single camera channel. Up to 36 view panes can fit in a single view panel.</li> <li><b>View panel:</b> A view panel is made up of the entire DX8000 viewing area. View panels are divided into multiple panes. A panel can display from one to 36 individual cameras.</li> </ul> <p>For additional information about view panels and panes, refer to <a href="#">Understanding View Panes and Panels</a> on page 44.</p>
6	PTZ Control Panel	Allows users with access rights to operate camera lens control features and to program PTZ presets, patterns, auxiliary outputs, and tours.



**Table A. Parts of the DX8000 Application Window (Continued)**

Item	Part	Description
7	Index View Panel	Allows users with access rights to search motion and alarm events within a 24-hour period specified in the playback timeline.
8	Playback Timeline	Displays a 24-hour timeline marked with color-coded video events. Allows users with Standard User access rights to select a date and time for playback.
9	Playback Control Panel	Provides buttons for users with access rights to control video playback. Includes forward and reverse playback and still image. It also provides controls for playback speed and volume.
10	PTZ OSD Menu or Digital Zoom Control	This control provides two functions depending on which mode the DX8000 is operating: live view or playback: <ul style="list-style-type: none"><li>• <b>Live View Mode:</b> In the Live View mode, provides users with access rights to operate PTZ OSD features. For information on using the PTZ OSD menu controls, refer to <a href="#">Using the PTZ OSD Menu Control</a> on page 69.</li><li>• <b>Playback Mode:</b> In the Playback mode, provides users with access rights to operate digital zoom features.</li></ul>
11	Status Bar	Displays current date and time, recorder processing status, disk status indicator, user name of currently logged-in user, and total amount of recorded video. <b>NOTE:</b> As the storage array of the DX8000 fills beyond its capacity, video is deleted in a first-in, first-out (FIFO) fashion. The disk status indicator on the status bar shows the amount of disk space used by recorded video. The red indicator marks the current recording position of the disk array, blue indicators mark parts of the array that are storing previously recorded video, and clear indicates that no video has been recorded in that area of the array.

## DX8000 MENU BAR

This section describes the DX8000 menu bar commands and includes the following topics:

- [File Menu](#) on page 38
- [Edit Menu](#) on page 38
- [View Menu](#) on page 39
- [Export Menu](#) on page 41
- [Favorite Menu](#) on page 41
- [Help Menu](#) on page 41

### File Menu

The following table describes the DX8000 File menu commands.

**Table B. File Menu Commands**

Command	Description
Client Password	Opens the DX8000 Client Password Setup dialog box for changing the client log-on password.
User Log-in	Opens the User Log-In dialog box for entering the user name and password to log in to the DX8000.
User Log-out	Immediately logs the current user out of the DX8000. The system returns to the default mode.
Software Upgrade	Opens the Select Upgrade Package dialog box for selecting the source from which to access files to upgrade the DX8000 software. This command is available only when you log in to the DX8000 as Administrator.
Backup Search	Opens the Backup data list dialog box for searching archived backed-up data.
End Backup Search	Ends the Backup Search mode and returns the DX8000 to the normal DVR Search mode.
Exit	Exits the DX8000 client application.

### Edit Menu

The following table describes the DX8000 Edit menu commands.

**Table C. Edit Menu Commands**

Command	Description
Export Setup	Opens the DX8000 Setup File Export dialog box for exporting the DX8000 system configuration settings to a specific file name and location. The Export feature also allows you to export the DX8000 settings to specified location for later retrieval. For more information, refer to <a href="#">Using the Edit Menu to Perform an Export</a> on page 206.
Import Setup	Opens the DX8000 Setup File Import dialog box for importing a DX8000 system configuration file. For more information, refer to <a href="#">Using the Edit Menu to Perform an Export</a> on page 206.

### View Menu

The following table describes the DX8000 View menu commands.

**Table D. View Menu Commands**

Command	Description
OSD	<p>Opens a submenu with the following choices:</p> <ul style="list-style-type: none"> <li>• <b>Site Name:</b> A global setting that, when selected, displays a site's name in the respective view pane.</li> <li>• <b>Camera Name:</b> A global setting that, when selected, displays a camera's name in the respective view pane.</li> <li>• <b>Video Recording:</b> A global setting that, when selected, displays an icon in the upper right corner of the pane and enables video recording for the cameras assigned to a view pane.</li> <li>• <b>Audio Recording:</b> A global setting that, when selected, enables audio recording for the cameras assigned to a view pane. The DX8000 compresses audio data to save space. In this case, recorded audio may not be of the same quality as live audio.</li> <li>• <b>PTZ:</b> A global setting that, when selected, enables PTZ capability for the cameras assigned to a view pane.</li> <li>• <b>Instant Recording:</b> A global setting that, when selected, enables instant recording capability for the cameras assigned to a view pane.</li> <li>• <b>POS:</b> A global setting that, when selected, enables POS video recording for the cameras assigned to a view pane.</li> <li>• <b>Select All:</b> Selects all of the OSD options.</li> </ul>
Resolution	<p>Opens a submenu with the following choices:</p> <ul style="list-style-type: none"> <li>• 1024x768</li> <li>• 1280x1024</li> </ul>
Cycle Views Setup	<p>Dwell time: Opens a submenu of dwell times with the following choices:</p> <ul style="list-style-type: none"> <li>• 2 Sec.</li> <li>• 5 Sec.</li> <li>• 10 Sec.</li> <li>• 30 Sec.</li> <li>• 60 Sec.</li> </ul>
Index View	Opens the Event Index pane.
Display Deinterlaced Image	Selects the deinterlace mode for enhancing the display of video images.
DirectX Draw	Improves performance by delegating graphics acceleration duties to your PC's video hardware instead of your computer's main processor.
Language	<p>Opens a submenu with the following choices:</p> <ul style="list-style-type: none"> <li>• English (default)</li> <li>• French</li> <li>• German</li> <li>• Italian</li> <li>• Polish</li> <li>• Portuguese</li> <li>• Russian</li> <li>• Spanish</li> </ul>

## [Export Menu](#)

The following table describes the DX8000 Export menu commands.

**Table E. Export Menu Commands**

Command	Description
Interrupt Export	Immediately concludes an export process. If the Interrupt Export command is executed before the scheduled backup time, the system will save the backed-up data up until the time the Interrupt Export command is executed.
Cancel Export	Immediately cancels the export process and no backed data retained.

## [Favorite Menu](#)

The following table describes the DX8000 Favorite menu commands.

**Table F. Favorite Menu Commands**

Command	Description
Add to Favorites	Opens the Add to Favorites dialog box, where you create a favorite and store the favorite to a specified folder.
Organize Favorites	Opens the Organize Favorites dialog box, where you can do the following: <ul style="list-style-type: none"><li>• Create a folders</li><li>• Rename folders</li><li>• Move favorites to a specific folder</li><li>• Delete a favorite or favorite folder</li></ul>

## [Help Menu](#)

The following table describes the DX8000 Help menu commands.
















**Table G. DX8000 Help Menu Commands**

Command	Description
DX8000 Help	Opens the DX8000 Help system.
About	Provides model and version information for the DX8000 application.

## DX8000 TOOLBAR

This section describes the DX8000 toolbar. The following table describes the DX8000 toolbar buttons.

**Table H. DX8000 Toolbar Buttons**

Button	Name	Description
	Live	Enters the display mode and opens the DX8000 main window, where live and playback video is displayed: <ul style="list-style-type: none"> <li>• <b>Live Mode:</b> Allows all users to view live video.</li> <li>• <b>Playback Mode:</b> Allows users with Standard User access and higher to play back recorded video.</li> </ul>
	Search	Enters the Search mode and opens the search window, providing access to search features. Users with Standard User access and higher are allowed to search video data using specific criteria.
	Setup	Enters the setup mode and opens the Setup dialog box to the Camera page (default view), and allows access to the other pages. Users with Power User access and higher are allowed to set up the features and options for the DVR.
	Export	Enters the export mode, where you configure the export options and parameters.
	Print	Enters the print mode, where you print the selected video image.
	Single Division	Displays one camera.
	4 Division	Displays four cameras at a time (quad display).
	9 Division	Displays nine cameras at a time.
	16 Division	Displays 16 cameras at a time.
	25 Division	Displays 25 images. Each DVR accommodates up to 16 cameras. You can display images from the local and remote DX8000 DVRs.
	36 Division	Displays 36 images. Each DVR accommodates up to 16 cameras. You can display images from the local and remote DX8000 DVRs.
	6, 10, 13 Division	Displays images as follows: <ul style="list-style-type: none"> <li>• 6 Division (1+5): One larger and five smaller images</li> <li>• 10 Division (2+8): Two larger and eight smaller images</li> <li>• 13 Division (1+12): One larger and 12 smaller images</li> </ul>
	Cycle Views	Turns window cycling on and off. Automatically cycles through each view panel ensuring all cameras get displayed. Group permission to change the dwell time is assigned by the Administrator to the following groups: Restricted User Group, Standard User Group, and Power User Group. For information on cycle views setup, refer to <a href="#">Automatically Cycling Through View Windows</a> on page 47.
	Full Screen	Selects a full-window view. The application window is expanded to occupy the entire monitor screen. Click the right mouse button to exit full-screen view.
	Connection List	Opens the Connection List dialog box for adding sites to the Site tree.

## DISPLAYING THE DX8000 WINDOW FROM A PAGE

To display the DX8000 main window from a Setup dialog page:




➔ On the DX8000 toolbar, click [Live](#).

## DESCRIPTION OF OPERATING MODES

The DX8000 Series DVR has four primary operating modes: Live, Playback, Search, and Setup. Each operating mode is accessed by clicking its corresponding button on the toolbar.

The following table describes the DX8000 operating modes.

**Table I. Operating Modes**

Icon	Mode	Description
	Live	Enters the display mode and opens the DX8000 main window, where live and playback video is displayed: <ul style="list-style-type: none"><li>• <b>Live Mode:</b> Allows all users to view live video.</li><li>• <b>Playback Mode:</b> Allows users with Standard User access and higher are allowed to play back recorded video.</li></ul>
	Search	Enters the Search mode and opens the search window, providing access to search features. Users with Standard User access and higher are allowed to search video data using specific criteria.
	Setup	Enters the setup mode and opens the Setup dialog box to the Camera setup page (default view), and allows access to the other setup pages. Users with Power User access and higher are allowed to set up the features and options for the DVR.

## UNDERSTANDING VIEW PANES AND PANELS

This section describes the DX8000 viewing area. The viewing area is organized into panes and panels, much like a window contains panes. Video from each camera is displayed in its own viewing pane.

This section includes the following topics:

- [Working with View Pane and Panel](#) on page 44
- [Configuring View Panels](#) on page 45
- [Navigating View Panels](#) on page 45

## WORKING WITH VIEW PANE AND PANEL

The DX8000 displays video from each camera in its own viewing pane.

- **View pane:** A view pane is a division of a view panel. Each view pane contains only a single camera channel. Up to 36 view panes can fit in a single view panel.
- **View panel:** A view panel is made up of the entire DX8000 viewing area. View panels are divided into multiple panes. Each panel can display from one to 36 individual cameras.

The following figure illustrates how the DX8000 viewing area is structured.



**Figure 17.** View Panes and Panel for 4-Division Display

The following table describes the view pane and panel as shown in the figure above.


**Table J.** View Panes Panel

Item	Description
<b>1</b>	Shows a view pane for a for division display.
<b>2</b>	Shows the view panel, which contains view panes.

## CONFIGURING VIEW PANELS

The DX8000 can display up to 36 cameras simultaneously in a single panel.

To select a view panel division:

1. On the DX8000 toolbar, click .
2. On the DX8000 toolbar, click a view panel division button.

For information on the view division buttons, refer to [DX8000 Toolbar](#) on page 42.

## NAVIGATING VIEW PANELS

This section describes how to move between the DX8000 view panes and panels. This section includes the following topics:

- [Navigating Between View Panels](#) on page 45
- [Expanding and Collapsing View Pane](#) on page 47
- [Manually Cycling Through Hidden View Panels](#) on page 47
- [Automatically Cycling Through View Windows](#) on page 47

### Navigating Between View Panels

The DX8000 allows you to monitor up to 36 channels: each channel is assigned to 1 pane within the view panel. If the 36-division display format is selected, all 36 panes occupy one panel. However, for single, 4-division, 9-division, 16-division, and 25-division display formats, the DX8000 displays the panes in multiple panels. In this case, to view all of the panes, you must cycle through multiple panels to display hidden panels.

- **Channel:** As pertains to video, one DX8000 camera port (input). The term channel is sometimes used interchangeably with camera.
- **Camera:** One external video device, such as a Spectra III™, that provides input video to the DX8000 DVR.

For example, if you select the single-division display format, 1 channel (video pane) fills the entire panel.

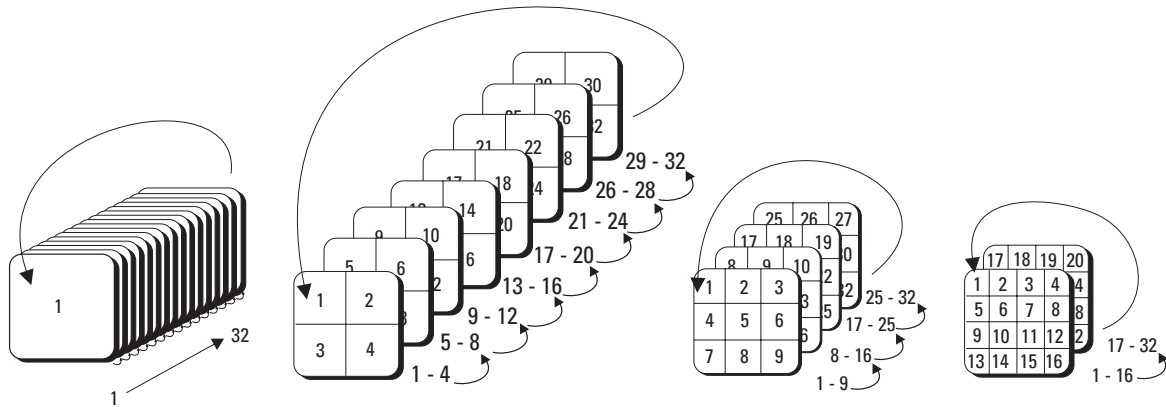
- The pane and panel represent the same amount of viewing area.

- In this case, there will be an additional 31 hidden panels (1 pane = 1 panel) available to cycle through.

Similarly, if you select the 4-division display format:

- Four panes (one camera/channel per pane) are displayed in the panel.
- In this case, 7 hidden panels (four cameras/channels per panel, which equals  $4 \times 7 = 28$  panels), remain to be displayed.

The following figure shows how the DX8000 cycles through view panels, depending on the display format.



**Figure 18.** Example of Single, 4, 9, and 16 Division View Panels

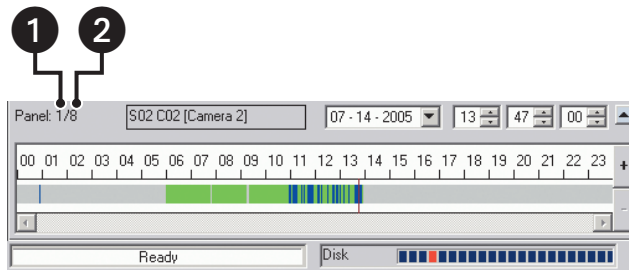
The following table describes how the DX8000 view panes and panels are organized.

**Table K.** How View Panels are Organized

Display Type	Grouping	Number of View Panes	Number of View Panels
Single	1/32	1	32
4 Division	1/8	4	8
9 Division	1/4	9	4
16 Division	1/2	16	2
25 Division	1/2	25	2
36 Division	1/1	36	1
6, 10, 13 Division:			
• 1+5 Division	1/6	6	6
• 2+8 Division	1/4	10	4
• 1+12 Division	1/4	13	4

Pressing one of the view panel division buttons sets the number of visible channels displayed in the panel. The following figure illustrates the view panel identifier.





**Figure 19. View Panel Identifier**

The following table describes how the DX8000 view panes and panels shown in [Figure 20](#) are organized.

**Table L. View Panes and Panel**

Item	Description
<b>1</b>	Indicates the panel number being viewed.
<b>2</b>	Indicates how many pane are displayed per panel.

### Expanding and Collapsing View Pane

To expand a view pane to fill the entire panel:

- ➔ Double-click a view pane.  
The view fills the entire view panel.


To collapse a view pane:

- ➔ Double-click the expanded view pane.  
The view pane returns to its default size.

### Manually Cycling Through Hidden View Panels

To manually cycle through hidden view panels:

- ➔ On the DX8000 toolbar, click one of the [panel](#) division buttons repeatedly.  
The view sequences through the view panels.

For example for a 4 Division display format, if you click  repeatedly, the DX8000 cycles through each of the eight available view panels.

### Automatically Cycling Through View Windows

The DX8000 provides an automatic cycle feature that when selected, automatically cycles through each view panel ensuring all cameras get displayed. Group permission to change the dwell time is assigned by the Administrator to the following groups: Restricted User Group, Standard User Group, and Power User Group.

This section describes how to configure the DX8000 to automatically cycle through camera views and includes the following sections:


- [Starting an Automatic Cycle View Mode](#) on page 48
- [Stopping an Automatic Cycle View Sequence](#) on page 48
- [Selecting User Groups to Set the Cycle View Dwell Time](#) on page 48
- [Selecting the Cycle View Dwell Time](#) on page 48

## Starting an Automatic Cycle View Mode

To start the automatic cycle view mode:

- ➔ On the DX8000 toolbar, click [Cycle Views](#).

The Cycle Views icon turns blue, indicating that the DX8000 is in the automatic cycle view mode. The system will cycle through each panel, displaying each pane for the configured cycle view dwell time.

For example, if you click , the automatic cycle view process starts.

## Stopping an Automatic Cycle View Sequence

To stop the automatic cycle view mode:


- ➔ On the DX8000 toolbar, click [Cycle Views](#).

The DX8000 stops the automatic cycle view mode.

## Selecting User Groups to Set the Cycle View Dwell Time


The DX8000 allows the Administrator to control which user group can change the cycle view dwell time. In this case, anyone that belongs to a selected user group can change the cycle view dwell time.

To select a user group to have permission to change the cycle view dwell time:

1. On the DX8000 toolbar, click .
2. From the DX8000 menu bar, choose View > Cycle Views Setup > Dwell time change.
3. From the Dwell time change submenu, choose a user group.

## Selecting the Cycle View Dwell Time

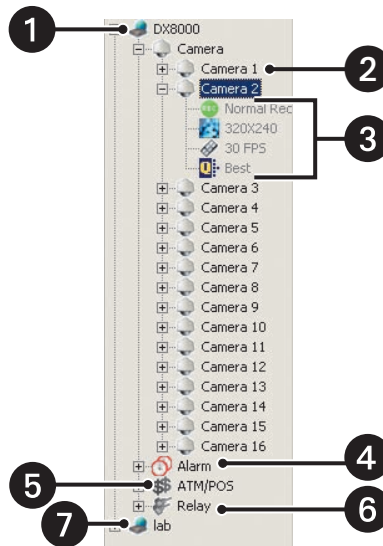
To configure the cycle period:

1. On the DX8000 toolbar, click .
2. From the DX8000 menu bar, choose View > Cycle Views Setup > Dwell time.
3. From the Dwell time submenu, choose a time period.

## WORKING WITH THE SITE TREE

The Site tree provides access to DX8000 resources, such as cameras, alarm inputs, and relay outputs. Objects can be selected by clicking once with the left mouse button and linked by dragging and dropping the icon into the view pane with the mouse. The Site tree information reflects the current DX8000 server configuration.





The following figure shows the Site tree.





**Figure 20.** Site tree Parts

The following table describes the Site tree parts.

**Table M.** Site tree Parts

Item	Part	Description
1	Name	<b>Site:</b> Expands and collapses the DX8000 site. Right-clicking the site name opens a shortcut menu that provides the following commands: <ul style="list-style-type: none"> <li>User Log-In: Clicking User Log-In opens the User Log-In dialog box, where you enter your user name and password to log into the DX8000 site.</li> <li>User Log-Out: Clicking logs you out of the DX8000 site.</li> <li>Connect</li> <li>Disconnect</li> </ul>
2		<b>Camera:</b> Expands and collapses the Camera tree.
3		<b>Channel information:</b> Displays icons that represent the configuration for the camera: <ul style="list-style-type: none"> <li>Recording mode</li> <li>Recording resolution</li> <li>Recording frame rate</li> <li>Recording Image quality</li> </ul>
4		<b>Alarm:</b> Expands and collapses the Alarm tree.
5		<b>ATM/POS:</b> Expands and collapses the ATM/POS tree.

**Table M. Site tree Parts (Continued)**

Item	Part	Description
6		<b>Relay:</b> Expands and collapses the Relay tree. Right-clicking a relay opens a shortcut menu that provides the following commands: <ul style="list-style-type: none"> <li>ON: Allows you to turn the relay on.</li> <li>OFF: Allows you to turn the relay off.</li> </ul>
7		<b>Remote site:</b> Expands and collapses the remote DX8000 site. Right-clicking the remote site name opens a shortcut menu that provides the following commands: <ul style="list-style-type: none"> <li>User Log-In: Clicking User Log-In opens the User Log-In dialog box, where you enter your user name and password to log into the remote DX8000 site.</li> <li>User Log-Out: Clicking logs you out of the remote DX8000 site.</li> <li>Connect: Allows you to connect to the remote site.</li> <li>Disconnect: Allows you to disconnect from the remote site.</li> </ul>

This section describes how to work with the Site tree and includes the following topics:




- [Assigning Cameras to View Panes](#) on page 50
- [Setting Up Links](#) on page 50
- [Removing Links](#) on page 52

## ASSIGNING CAMERAS TO VIEW PANES

The DX8000 provides view panes that are organized into view panels. The DX8000 includes 36 view panels that can display cameras from up to five connected DVR sites. For information on view panels, refer to [Working with View Pane and Panel](#) on page 44.

The DX8000 Series DVR supports triplex operation. Triplex operation means that the DX8000 will continuously record even while users view simultaneous live and playback video or modify the system setup.

To assign a single camera to a view pane:

1. On the DX8000 toolbar, click .
2. In the Site tree, click the plus sign (+) next to  to expand the tree if necessary.
3. Do one of the following:
  - To assign a single camera to a view pane, drag the camera from the Site tree onto a view pane.
  - To assign all cameras from a single site to the view panes at once, drag  onto a single view pane. (The default arrangement of cameras is Camera1, Camera2, Camera3 – from left to right, top to bottom.)
4. Repeat the process in step 3 for up to 36 cameras from up to five DVR sites.

## SETTING UP LINKS

The DX8000 allows you to set up links in various configurations:

- You can link multiple alarms and relays to a single camera.
- You can link a single alarm or relay to multiple cameras.
- You can link alarms and relays to cameras by dragging them onto individual camera view panes.
- You can also manually turn a relay on and off from the Site tree.

This section describes how to set up links and includes the following sections:

- [Manually Turning a Relay On and Off](#) on page 51
- [Linking Alarm Inputs to a Camera](#) on page 51
- [Linking a Relay Output to a Camera](#) on page 51
- [Linking Relay Outputs to Alarm Inputs](#) on page 51

## **Manually Turning a Relay On and Off**

To manually turn a relay on and off:

1. Right click a relay. The shortcut menu opens.
2. Click ON or OFF to turn the relay OFF if it is on or ON if it is off.



## **Linking Alarm Inputs to a Camera**

The DX8000 allows you link alarm inputs to a camera.

- You can link multiple alarm inputs to a single camera.
- You can also link a single alarm input to multiple cameras.

The DX8000 allows you link alarms to cameras by dragging them onto individual camera view panes.

To link an alarm input to a camera:

1. On the DX8000 toolbar, click .
2. In the Site tree, click the plus sign (+) next to the camera to which you want to link alarms.
3. Click the plus sign (+) next to the  to see the list of alarm inputs.
4. Drag an alarm input onto a camera.



## **Linking a Relay Output to a Camera**

The DX8000 allows you link relays to a camera.

- You can link multiple relays a single camera.
- You can also link a single relay to multiple cameras.



The DX8000 allows you link relays to cameras by dragging them onto individual camera view panes.

To link a relay output to a camera:

1. On the DX8000 toolbar, click .
2. In the Site tree, click the plus sign (+) next to the camera to which you want to link relays.
3. Click the plus sign (+) next to  to see the list of relay outputs.
4. Drag a relay onto a camera.

## **Linking Relay Outputs to Alarm Inputs**

To link a relay output to an alarm input:

1. On the DX8000 toolbar, click .
2. In the Site tree, click the plus sign (+) next to  to expand the Alarm tree if needed.

Relays can also be linked to cameras and alarms on the Link settings page. For more information, refer to [Configuring Basic Relay and Alarm Settings](#) on page 133.

3. Click the plus sign (+) next to  to expand the Relay tree if needed.
4. Drag a relay output onto an alarm input.


## REMOVING LINKS

This section describes how to remove links and includes the following sections:

- [Removing a Linked Alarm Input from a Camera](#) on page 52
- [Removing a Linked Relay Output from a Camera](#) on page 52
- [Removing a Linked Relay Output from an Alarm Input](#) on page 52


### Removing a Linked Alarm Input from a Camera

To unlink an alarm from a camera:

1. On the DX8000 toolbar, click .
2. In the Site tree, click the plus sign (+) next to the camera from which you want to remove an alarm input.
3. Drag the alarm outside the Site tree panel, and then release the mouse button.
4. Repeat the above process for each alarm you want to remove.


### Removing a Linked Relay Output from a Camera

To unlink a relay from a camera:

1. On the DX8000 toolbar, click .
2. In the Site tree, click the plus sign (+) next to the camera from which you want to remove the relay output.
3. Drag the relay outside the Site tree panel to the DX8000 toolbar or panel (above or below the Site tree panel), and then release the mouse button.
4. Repeat the above process for each relay you want to remove.

### Removing a Linked Relay Output from an Alarm Input

To unlink a relay from an alarm:

1. On the DX8000 toolbar, click .
2. In the Site tree, click the plus sign (+) next to the alarm input from which you want to remove the relay output.
3. Drag the relay outside the Site tree panel, and then release the mouse button.
4. Repeat the above process for each relay you want to remove.

# Working in Live View Mode

This section describes how to use the DX8000 to view and record live video. All users can view live video from the main window. Users with Standard User access and higher can operate the on-screen PTZ controls.

To view live video in the DX8000 main window:

➔ On the DX8000 toolbar, click [Live](#).

This section includes the following topics:

- [Assigning Cameras to View Panes](#) on page 53
- [Live View On-Screen Display \(OSD\)](#) on page 56
- [Customizing the On-Screen Display \(OSD\)](#) on page 57

## ASSIGNING CAMERAS TO VIEW PANES

To assign a camera to the view pane:

1. Drag a camera from the Site tree onto a view pane.
2. Repeat the process in step 1 for up to 36 cameras from up to five different DX8000 sites.

For information about the DX8000 view pane and panels, refer to the following topics:

- [Working with View Pane and Panel](#) on page 44
- [Configuring View Panels](#) on page 45
- [Navigating View Panels](#) on page 45

## SETTING UP FAVORITES

The DX8000 Favorites menu allows you to organize and save camera views. For example, you might want to display camera views that show the delivery gate entrance for buildings 1, 4, 7, and 12 during the hours of 06:00 to 07:30 and another camera view that displays the front lobby of building 1–16 at 08:00.

This section describes the following topics:

- [Adding a Camera View to Favorites](#) on page 53
- [Organizing Favorites in Folders](#) on page 54

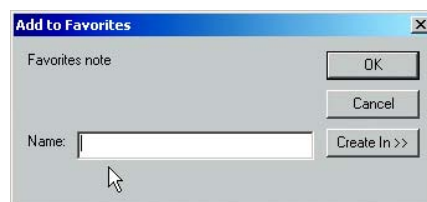
## ADDING A CAMERA VIEW TO FAVORITES

You can create multiple camera views to monitor various site locations. For example, you could create a folder named Day Shift for displaying camera views during normal working hours and Night Shift for displaying various camera views after work and during the night hours. For information about organizing favorites into folders, refer to [Organizing Favorites in Folders](#) on page 54.

To add a camera view to favorites:

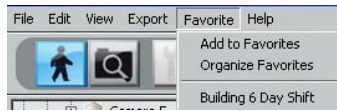
1. From the DX8000 menu bar, click Add to Favorites.

The Add to Favorites dialog box opens.



**Figure 21.** Add to Favorites Dialog Box

2. Enter the camera view name in the Name text box.
3. Click OK. The camera view is added to the favorites, and the Add to Favorites dialog box closes.
4. To view the new entry, from the DX8000 menu bar, click Favorites. The new entry appears in the Favorites list.



**Figure 22. Favorites Menu List**

## ORGANIZING FAVORITES IN FOLDERS

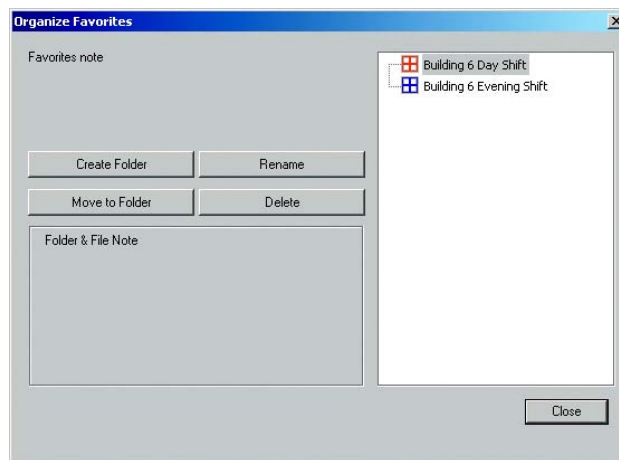
As your list of favorites grows, you can keep them organized by creating folders. You can organize your camera views by site name, user name, and so forth. For example, you could create a folder named Day Shift for displaying camera views for the day shift.

### Creating a Favorites Folder

To create a favorites folder:

1. From the DX8000 menu bar, click Organize Favorites.

The Organize Favorites dialog box opens.



**Figure 23. Organize Favorites Dialog Box**

2. Click Create Folder. A new folder is added to the favorites area.
3. To name the folder, do one of the following:
  - a. If the new folder name is already selected, type the name of the folder.  
or
  - b. If the new folder name is not selected:
    - (1) Click the new folder.
    - (2) Type the name of the folder.

The new folder is listed in the Favorites area of the Organize Favorites dialog box and in the Favorites menu.



## Organizing Favorites in Folders

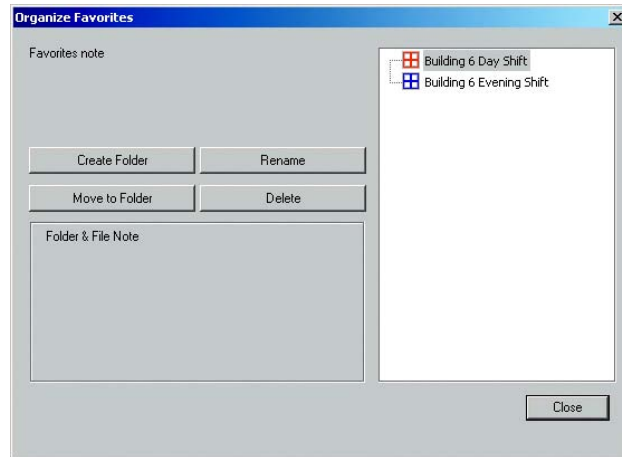
To organize existing favorites into folders:

1. Create a favorites folder.

For information about creating a favorites folder, refer to [Creating a Favorites Folder](#) on page 54.

2. From the DX8000 menu bar, click Organize Favorites.

The Organize Favorites dialog box opens. A list of the current favorites and folders is displayed in the favorites area.

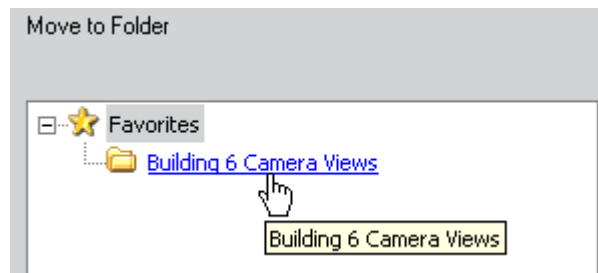


**Figure 24.** Organize Favorites Dialog Box and List of Favorites and Folders

3. In the favorites area, click a favorite.

4. Click Move to Folder.

The Move to Folder dialog box opens.



**Figure 25.** Move to Folders Dialog Box

5. Select a destination folder.

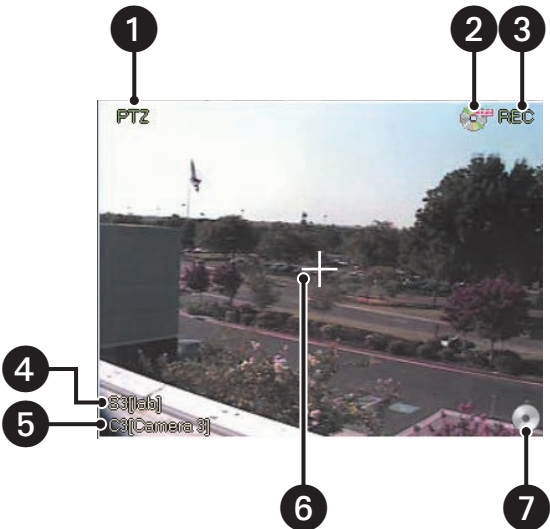
6. Click OK.

The favorite is moved under the destination folder.

# LIVE VIEW ON-SCREEN DISPLAY (OSD)

The DX8000's OSD consists of camera and site information that is superimposed on each view pane. Each display item in the OSD can be customized for both live and playback viewing.


The following figure shows the Live View OSD pane.



**Figure 26.** Live View OSD Pane

The following table describes the parts of the Live View OSD pane.

**Table N.** Parts of the Live View OSD Pane

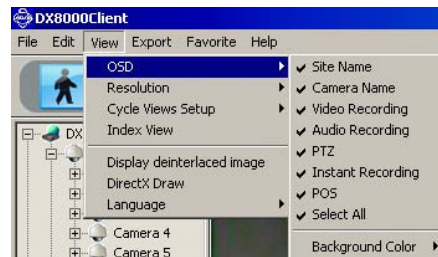
Item	Part	Description
1	PTZ	Indicates that the PTZ control is enabled.
2		Indicates that audio recording is enabled. The DX8000 compresses audio data to save space. In this case, recorded audio may not be of the same quality as live audio.
3	REC	Indicates camera recording mode and status. A blinking REC indicator signifies event recording. <ul style="list-style-type: none"> <li>Green indicates normal recording.</li> <li>Blue indicates motion recording.</li> <li>Red indicates alarm recording.</li> <li>Yellow indicates event recording.</li> <li>Purple indicates video loss recording.</li> </ul>
4	Site Designator	Lists the number and name of the current site.
5	Camera Designator	Lists the number and name of the current camera.
6	On-Screen PTZ Control	Facilitates mouse control of PTZ functions. Refer to <a href="#">Operating the On-Screen Pan, Tilt, and Zoom (PTZ) Controls</a> on page 59.
7	Instant Recording	Starts/stops instant recording if enabled.

## CUSTOMIZING THE ON-SCREEN DISPLAY (OSD)

Users with Guest and Power User access and higher can add and delete on-screen display items.

To customize the on-screen display:

1. From the DX8000 menu bar, choose View > OSD and then select the items you want to add to or delete from the OSD. Items include
  - Site Name
  - Camera Name
  - Video Recording
  - Audio Recording
  - PTZ
  - Instant Recording
  - POS
  - Select All (displays all items in each pane)
  - Background Color



**Figure 27.** Client OSD Menu Options

2. Do one of the following:
  - From the DX8000 menu bar, choose View > OSD > Background Color > Set Color to add a contrasting background field behind each OSD display item.
  - From the DX8000 menu bar, choose View > OSD > Background Color > Disable Background to remove background field.

## INSTANT RECORDING

This section describes the instant recording mode. Users with Power User access and higher can configure the DX8000 for recording video both instantly and in accordance with a preset schedule. The Instant Recording mode is enabled from the Schedule page. Instant recording is activated from the main window by double-clicking the Instant Recording icon.

If the DVR is not in the normal recording mode, you can use the instant recording mode to manually start and stop a video recording session instantly. For information about adding the Instant Recording icon to the OSD, refer to [Adding Instant Recording to OSD](#) on page 58.

This section includes the following topics:

- [Enabling and Disabling Instant Recording](#) on page 58
- [Adding Instant Recording to OSD](#) on page 58
- [Starting and Stopping Instant Recording](#) on page 58

### ENABLING AND DISABLING INSTANT RECORDING



This section describes how to enable and disable the instant recording mode and includes the following topics:

- [Enabling Instant Recording](#) on page 58
- [Disabling Instant Recording](#) on page 58

For more information on instant recording, refer to [Instant Recording](#) on page 57.



## Enabling Instant Recording

To enable the Instant Recording mode:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click .
3. In the Camera Settings Panel, from the Instant Recording drop-down box, select Enable.

## Disabling Instant Recording

To disable the Instant Recording mode:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click .
3. In the Camera Settings Panel, from the Instant Recording drop-down box, select Disable.

## ADDING INSTANT RECORDING TO OSD

To add the Instant Recording icon to the OSD:

- ➔ From the DX8000 menu bar, choose View > OSD > Instant Recording.  
The Instant Record icon is displayed in the lower-right corner of the view pane.

## STARTING AND STOPPING INSTANT RECORDING

The Instant Recording mode must first be enabled from the Schedule page and the Instant Recording icon must be visible in the lower-right corner of the view pane. For more information on DX8000 instant recording, refer to [Instant Recording](#) on page 57. For information on OSD, refer to [Live View On-Screen Display \(OSD\)](#) on page 56.

The following figure shows the Record and Instant Record icons.



**Figure 28.** Activating Instant Recording

The following table describes the instant recording indicators.

**Table 0.** Instant Recording Indicators

Item	Icon	Description
1	REC	Indicates camera recording mode and status. A blinking REC indicator signifies event recording. <ul style="list-style-type: none"><li>Green indicates normal recording.</li><li>Blue indicates motion recording.</li><li>Red indicates alarm recording.</li><li>Yellow indicates ATM/POS recording.</li></ul>
2	Instant Recording	Starts/stops instant recording if enabled. Changes from silver to blue to indicate that instant recording is activated.

This section describes how to start and stop instant recording and includes the following topics:

- [Starting Instant Recording](#) on page 59
- [Stopping Instant Recording](#) on page 59

### **[Starting Instant Recording](#)**

To start instant recording:

- ➔ Double-click the Instant Recording icon located in the lower-right corner of the view pane.
- The Instant Recording icon changes from silver to blue, indicating that instant recording is activated.
  - If video recording is enabled, verify that REC is highlighted white. If video recording is not enabled, REC is not displayed.

### **[Stopping Instant Recording](#)**

To deactivate instant recording:

- ➔ In the view pane, double-click the Instant Recording icon.

## **OPERATING THE ON-SCREEN PAN, TILT, AND ZOOM (PTZ) CONTROLS**

Users with Standard User access and higher may operate pan, tilt, and zoom lens functions of cameras that support such features. PTZ functions can be controlled on-screen in Live mode using the mouse.


PTZ control is available only for cameras that support PTZ functions using Pelco's P, D, or Coaxitron® protocols. For more information about configuring PTZ ports, refer to Setting Up COM1 and COM2 Port Properties in the DX8000 server Help system or the Operation and Programming manual. In addition, the PTZ option must be enabled and a protocol must be assigned to the camera channel. For more information, refer to Camera Setup in the DX8000 server Help system or the Operation and Programming manual.

This section describes how to use the PTZ controls and includes the following topics:

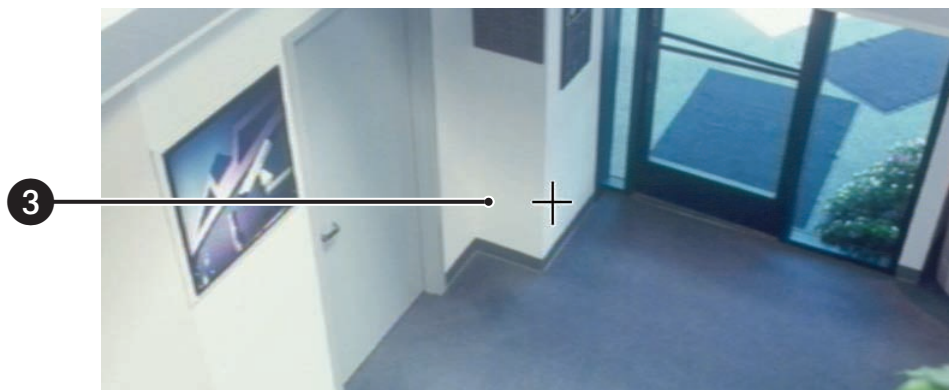
- [Operating the PTZ Controls](#) on page 60
- [Adjusting the Camera Lens](#) on page 61
- [Adjusting the Camera Zoom](#) on page 62
- [Using PC Keyboard Shortcuts to Operate PTZ and Lens Functions](#) on page 63

## **OPERATING THE PTZ CONTROLS**

To operate the on-screen PTZ controls:

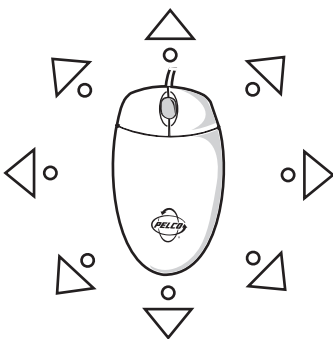
1. On the DX8000 toolbar, click .
2. Select a PTZ-enabled camera from the Site tree.

3. Place the mouse pointer in the middle of the camera's view pane. The mouse pointer will change to a black cross when on-screen PTZ control is available.



**Figure 29.** On-Screen PTZ Control

4. Click and hold the left mouse button, and then drag the mouse pointer in the direction you want to move the camera. The display changes to an arrow, indicating the direction of the mouse.



**Figure 30.** On-Screen PTZ Movement

5. Release the mouse button when you have repositioned the camera to the desired location.

## ADJUSTING THE CAMERA LENS

To adjust camera lens features:

- ➔ Click the plus (+) or minus (-) button next to the zoom, focus, and iris function on the keypad.



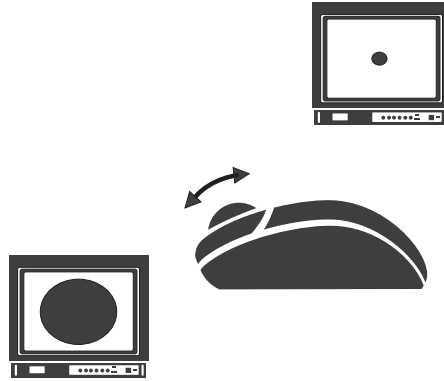
**Figure 31.** PTZ Keypad with Camera Lens Controls

## ADJUSTING THE CAMERA ZOOM

To adjust camera zoom using the mouse:

- ➔ Rotate the mouse wheel forward to zoom in and backward to zoom out.

The following figure shows how to operate the mouse to zoom in and out. You can also use keyboard shortcuts to operate the lens features of cameras such as Pelco's Spectra III. For more information about using keyboard shortcuts, refer to [Using PC Keyboard Shortcuts to Operate PTZ and Lens Functions](#) on page 63.



**Figure 32.** Mouse Wheel Zoom



## USING PC KEYBOARD SHORTCUTS TO OPERATE PTZ AND LENS FUNCTIONS


Users with Standard User access and higher may use a PC keyboard to operate PTZ and lens functions of cameras that support such features. PTZ and lens functions can be controlled in Live mode using the keyboard.

The following table describes the keyboard buttons that you use to control PTZ and lens functions.

**Table P.** Standard PC Keyboard Functions for Controlling PTZ and Lens Functions

Key	Description
Insert and Delete	<p>These keys provide the following functionality:</p> <ul style="list-style-type: none"> <li>• <b>On-screen display, preset and pattern modes:</b> Insert increases and Delete decreases focus, performing the same actions as the focus control on the PTZ keypad.</li> <li>• <b>Remote camera programming mode:</b> Insert and Delete perform the same actions as the PTZ keypad focus (+) and (-) buttons, navigating up and down the camera menu choices.</li> </ul>
Home and End	<p>These keys provide the following functionality:</p> <ul style="list-style-type: none"> <li>• <b>On-screen display, preset and pattern modes:</b> The Home key opens and the End key closes the iris, performing the same actions as the PTZ keypad iris (+) and (-) buttons.</li> <li>• <b>Remote camera programming mode:</b> The Home key selects an option from the camera's on-screen menu. The End key cancels an option or exit a menu. These keys perform the same actions as the PTZ keypad iris (+) and (-) buttons.</li> </ul>
Page Up and Page Down	<p>These keys perform the same functionality in the on-screen display and the preset and pattern modes as the PTZ keypad zoom (+) and (-) buttons. Page Up zooms in; Page Down zooms out.</p>
Up and Down Arrows	<p>These keys provide the following functionality:</p> <ul style="list-style-type: none"> <li>• <b>On-screen display, preset and pattern modes:</b> The up arrow key raises the camera and the down arrow key lowers the camera. The keys perform the same actions as the mouse to move the camera.</li> <li>• <b>Remote camera programming mode:</b> The arrow keys navigate up and down the camera menu choices. The keys perform the same actions as the PTZ keypad focus (+) and (-) buttons.</li> </ul>
Left and Right Arrows	<p>These keys provide the same actions as using the mouse to move the camera. The left arrow key pans the camera to the left and the right arrow key pans the camera to the right.</p>
+ and -	<p>These keys perform similar actions as using the mouse to change the speed of camera movement. The plus (+) key, pressed once increases the camera's pan and tilt speed. The minus (-) key pressed once decreases the camera's pan and tilt speed. Each time the plus (+) key is pressed the pan and tilt speed is increased toward the maximum speed. Each time the minus (-) key is pressed, the pan and tilt speed is decreased toward the minimum speed.</p>



To use the keyboard (+) and (-) keys to control camera pan and tilt speed:

1. On the DX8000 toolbar, click  .
2. Select a PTZ-enabled camera from the Site tree.
3. Click the mouse pointer in the camera's view panel.
4. Press and hold the up/down and left/right arrows to pan and tilt the camera.
5. Press the plus (+) key once or more to increase the pan and tilt speed. Press the minus (-) key once or more to decrease the pan and tilt speed.

## PTZ PRESETS

A preset is a user-defined camera position using pan and tilt, zoom, and focus commands (camera's auto focus option must be off). Only cameras that support positioning and programming using D, P, or Coaxitron protocols can use this feature. The DX8000 Series DVR can address up to 32 PTZ presets (1-32). Preset 95 is reserved for remote camera setup, and preset 99 is reserved for camera autoscan mode.

The following PTZ operating guidelines must be observed:



- To program or clear presets, preset tours, and patterns, the  icon must be engaged.
- To activate presets, tours, and patterns, the  icon must be disengaged.

This section describes how to program, activate, and clear presets and includes the following topics:



- [Programming a Preset](#) on page 64
- [Activating a Preset](#) on page 65
- [Clearing a Preset](#) on page 66

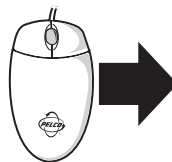
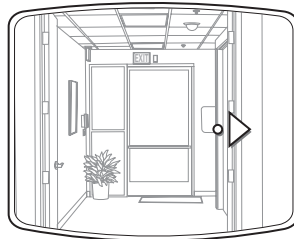
## PROGRAMMING A PRESET

This section describes how to program a preset. The following PTZ operating guidelines apply:



- Clicking the  icon places DX8000 in PTZ programming mode.
- While in PTZ programming mode, multiple presets can be programmed until the  icon is pressed again.

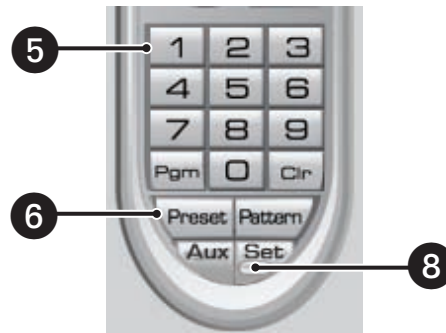
To program a PTZ preset:

1. On the DX8000 toolbar, click .
2. Drag a camera from the Site tree onto a view panel.
3. Click .
4. Using the on-screen PTZ controls and PTZ keypad, move the camera to the desired position and adjust the zoom setting.



**Figure 33.** Creating a Preset

5. Using the PTZ keypad, select a number for the new preset (for example, 1).
6. Click  to store the preset in the selected memory location.
7. Repeat steps 4-6 for each preset you want to program.
8. Click  again to exit programming mode.




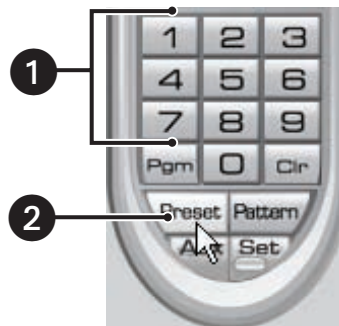
**Figure 34.** Programming a Preset

## ACTIVATING A PRESET

Double-digit presets can be set or activated by pressing the first digit and then the second digit sequentially. For example, preset 20 can be selected by clicking the number 2 and then the number 0 on the PTZ keypad.

To activate a preset:




1. On the DX8000 keypad, click a preset number (1-32) on the keypad.
2. Click  to activate preset. The camera repositions to the new preset.

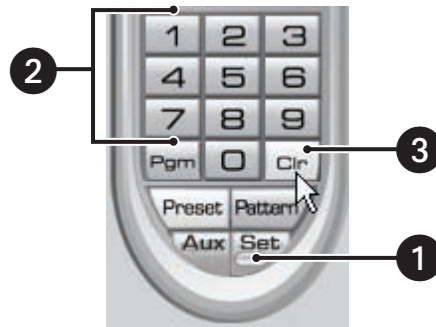


**Figure 35.** Activating a Preset

## CLEARING A PRESET

To clear a preset:

1. On the DX8000 keypad, click  to enter programming mode.
2. Click the number of the preset you want to clear from the PTZ keypad.
3. Click .
4. Repeat steps 2 and 3 to clear multiple presets.
5. Click  to exit programming mode.



**Figure 36.** Clearing a Preset

## PTZ PATTERNS

A pattern is a user-defined, viewable camera path with a definite beginning and end. Patterns are made up of a sequence of standard pan, tilt and lens commands. Patterns are stored in the internal memory of the PTZ device, such as a Spectra® dome, that is connected to the DX8000. Depending on the type and configuration of the PTZ device, the DX8000 can address up to four unique PTZ patterns. Once defined, a pattern can be activated with a series of on-screen commands. A pattern will run continuously until it is deactivated.

Only PTZ-enabled cameras that support pattern programming through D, P, or Coaxitron protocols can use this feature.

This section describes how to program, activate, and clear patterns, and access the programming features of remote cameras. This section includes the following topics:




- [Programming a Pattern](#) on page 67
- [Activating a Pattern](#) on page 68
- [Clearing a Pattern](#) on page 68
- [Accessing Programming Features of Remote Cameras](#) on page 69

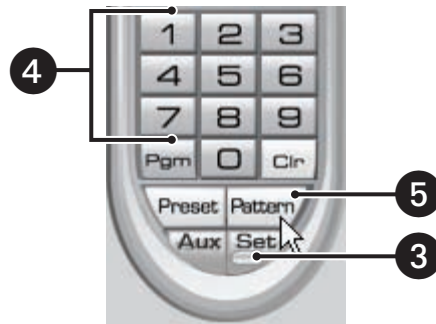
## PROGRAMMING A PATTERN

This section describes how to program a pattern. Certain PTZ devices, such as Pelco's Spectra series domes, will display an on-screen message stating the amount of remaining memory available for pattern programming.

### Start Programming a Pattern

To program a pattern:



1. On the DX8000 toolbar, click .
2. Drag a camera from the Site tree onto a view panel.
3. On the DX8000 keypad, click  to enter programming mode.
4. Using the PTZ keypad, select a number for the pattern (1 to 4).
5. Click .
6. Move the camera through a series of movements using the on-screen pan and tilt, zoom, and focus controls.



**Figure 37.** Programming a Pattern

### Stop Programming a Pattern


To stop programming a pattern:

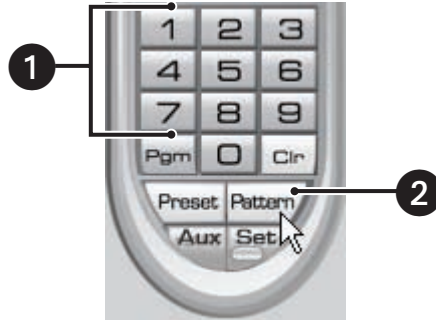
1. On the DX8000 keypad, click .
2. Click .

## ACTIVATING A PATTERN

When activated, a pattern will repeat indefinitely until it is cleared, another pattern is set, or the on-screen PTZ control is moved.

To activate a pattern:






1. On the DX8000 keypad, click a pattern number (1 to 4) on the keypad.
2. Click .

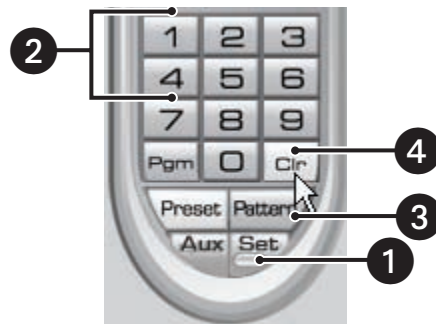


**Figure 38.** Activating a Pattern

## CLEARING A PATTERN

To clear a pattern:

1. On the DX8000 keypad, click  to enter programming mode.
2. Select a pattern number (1 to 4) on the keypad.
3. Click .
4. Click .
5. Click  again.
6. Click  again to exit programming mode.



**Figure 39.** Clearing a Pattern

## ACCESSING PROGRAMMING FEATURES OF REMOTE CAMERAS

You can use the PTZ function to program features of remote cameras, such as Pelco's Spectra or Esprit®. Only cameras that support remote programming through D, P, or Coaxitron protocols can use this feature.

The DX8000 allows you to navigate the remote camera menu system using any of the following:

- PTZ OSD Menu controls. For information on using the PTZ OSD Menu controls, refer to [Using the PTZ OSD Menu Control](#) on page 69.
- Keypad controls. For information on using the keypad controls, refer to [Accessing a Remote Camera Programming Menu](#) on page 70.
- Keyboard keys. For information on using the keyboard keys, refer to [Using PC Keyboard Shortcuts to Operate PTZ and Lens Functions](#) on page 63.

This section describes how to access the programming features of remote cameras and includes the following topics:

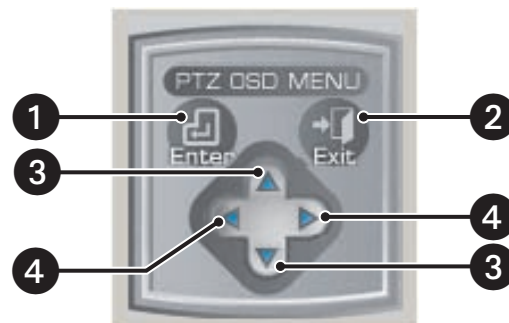
- [Using the PTZ OSD Menu Control](#) on page 69
- [Accessing a Remote Camera Programming Menu](#) on page 70

### Using the PTZ OSD Menu Control

The DX8000 allows you to navigate the menu system of remote cameras using the PTZ OSD Menu control. The PTZ OSD Menu control is available when the DX8000 is in Live View mode. Alternative methods to navigate the remote camera menu system are as follows:

- Keypad controls. For information on using the keypad controls, refer to [Accessing a Remote Camera Programming Menu](#) on page 70.
- Keyboard keys. For information on using the keyboard keys, refer to [Using PC Keyboard Shortcuts to Operate PTZ and Lens Functions](#) on page 63.

The following figure shows the PTZ OSD Menu control.



**Figure 40.** PTZ OSD Menu

The following table describes the parts of the PTZ OSD Menu control.

**Table Q.** Parts of the PTZ OSD Menu Control

Item	Part	Description
1	Enter	Provides the following actions: <ul style="list-style-type: none"><li>• Accepts the selected remote camera OSD menu choice.</li><li>• Accesses menu option parameters. For example, if the cursor points to the Language option, clicking Enter accesses the list of available languages.</li></ul>
2	Exit	N/A
3	Up and Down Buttons	Navigate up and down the remote camera OSD menu or cycle through a list of options are parameters.
4	Left and Right Buttons	Perform no activity.





## Accessing a Remote Camera Programming Menu

The DX8000 allows you to navigate the remote camera menu system using any of the following:

- PTZ OSD Menu controls. For information on using the PTZ OSD Menu controls, refer to [Using the PTZ OSD Menu Control](#) on page 69.
- Keypad controls. For information on using the keypad controls, refer to [Accessing a Remote Camera Programming Menu](#) on page 70.
- Keyboard keys. For information on using the keyboard keys, refer to [Using PC Keyboard Shortcuts to Operate PTZ and Lens Functions](#) on page 63.

The following procedure instructs you to use the PTZ OSD Menu control to navigate the remote camera programming menu.

To access a programming menu for a remote camera:

1. On the DX8000 toolbar, click .
2. Drag a remote camera from the Site tree onto a view panel.  
For certain camera models, you can also select preset number 95 from the keypad to access remote setup mode.
3. To access remote camera setup mode, do one of the following:
  - On the DX8000 keypad, click  from the keypad.
  - Click , 9, 5, and  from the PTZ keypad.



**Figure 41.** PTZ Control Panel



4. To navigate up and down camera menu choices, do one of the following:
  - Use the PTZ OSD Menu controls.
  - Use the on-screen PTZ controls or the focus (+) and focus (-) buttons.
5. To select an option from the camera's on-screen menu, do one of the following:
  - On the PTZ OSD Menu, click Enter.
  - On the keypad, click the iris (+) button.

6. Click the iris (-) button to cancel an option or select the Exit command.

You can also use the on-screen PTZ controls with your mouse to navigate camera menus. Click and drag the mouse up or down to move between menu options.

7. Click the iris (+) button to select the option or exit a menu when the cursor is at the Exit command.



**Figure 42.** Camera Setup Menu


## SENDING AUXILIARY COMMANDS TO A DEVICE

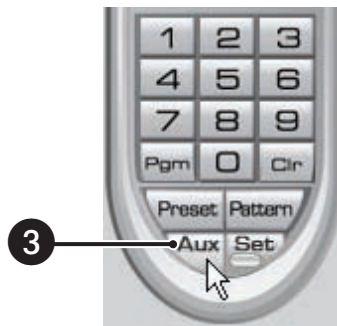
The DX8000 auxiliary feature allows you to control external equipment connected to the auxiliary outputs of Spectra domes or Esprit positioning systems. The auxiliary function is implemented through the D protocol and P protocol. In this case, the attached camera and DX8000 must be configured to communicate using one of these protocols.

The Aux key selects the auxiliary mode. Buttons 1–4 select which of the camera's auxiliary outputs to operate. Buttons 1–4 operate as a toggle (on/off) each time they are clicked.

For example, an Esprit equipped with a wiper uses Aux 1 to control the wiper. In this case, pressing Aux and then 1 sends a command to the Esprit to operate the wiper. You must configure the camera to establish how the camera responds to an auxiliary command. For detailed information about how a specific Spectra or Esprit camera system interprets auxiliary commands, refer to the documentation that accompanies your Spectra or Esprit camera system.

To send an auxiliary command:

1. On the DX8000 keypad, click  to enter the programming mode.
2. Select the camera in the DX8000 view panel to which you want to send the auxiliary command.
3. Click the Aux button. Keypad buttons 1–4 are available.



**Figure 43.** Auxiliary (Aux) Button

The following figure shows that keypad buttons 1–4 are available.



**Figure 44.** Keypad Buttons 1–4 are Available

4. Click a keypad button (1–4). The auxiliary function assigned by camera for the selected button is executed.

## CONFIGURING PRESET TOURS

A preset tour allows a camera to move through a programmed sequence of PTZ presets. The DX8000 Series DVR can store up to four preset tours. While four tours can be programmed, only one tour can be activated at a time. A preset tour will operate continuously until another PTZ control action is performed. At least one PTZ preset must be set in order to create a preset tour.

This section describes how to configure preset tours and includes the following topics:

- [Programming a Preset Tour](#) on page 73
- [Activating a Preset Tour](#) on page 76
- [Deactivating a Preset Tour](#) on page 76




## PROGRAMMING A PRESET TOUR

This section describes how to program a preset tour and includes the following topics:

- [Accessing a Preset Tour Group](#) on page 73
- [Adding Presets to a Tour](#) on page 74
- [Deleting Presets from a Tour](#) on page 75

### Accessing a Preset Tour Group

To access the “Preset tour group” dialog box:

1. On the DX8000 toolbar, click .
2. On the DX8000 keypad, click  and then  on the PTZ keypad. The Preset tour group dialog box opens.
3. Select the preset tour (1-4) that you want to program from the drop-down box.
4. Do one of the following:
  - To add presets to a tour, refer to [Adding Presets to a Tour](#) on page 74.
  - To delete presets from a tour, refer to [Deleting Presets from a Tour](#) on page 75.

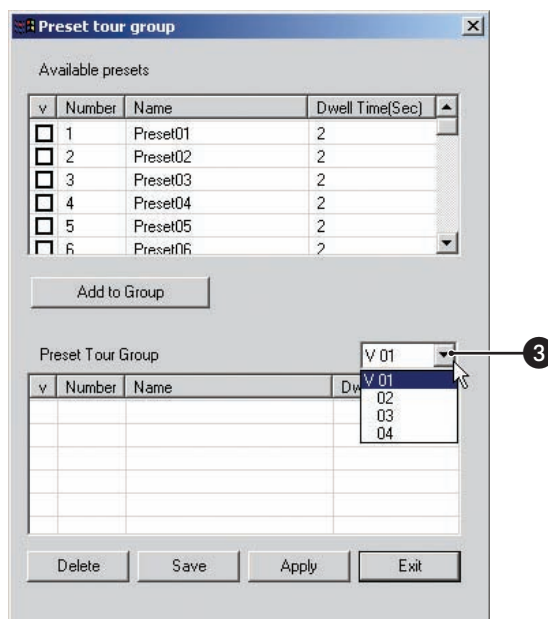
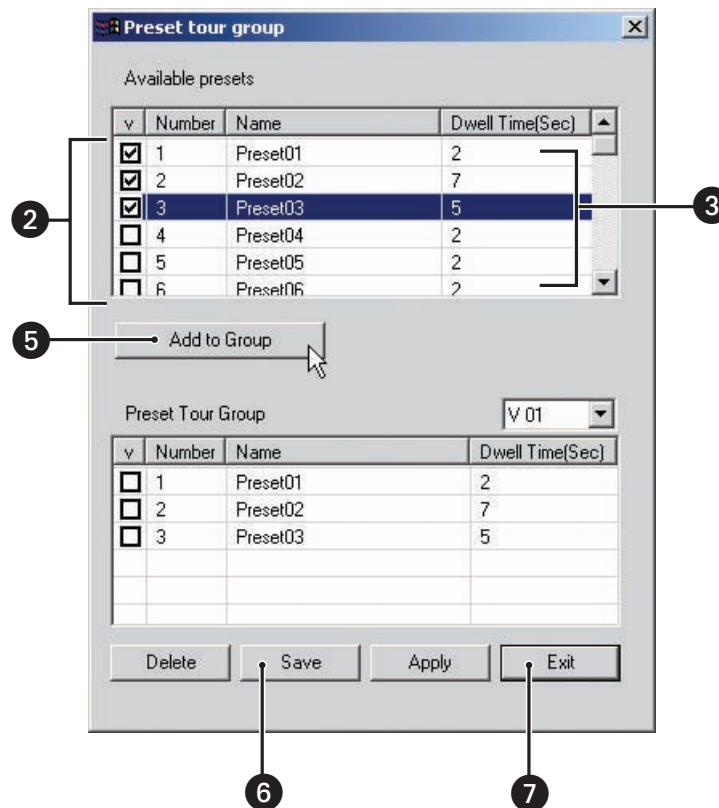


Figure 45. Preset Tour Dialog Box

## Adding Presets to a Tour

To add presets to a tour:

1. Access the Preset tour group dialog box. For information on accessing the Preset tour group dialog box, refer to [Accessing a Preset Tour Group](#) on page 73.
2. Click the check box next to one of the presets you want to add to the tour.
3. Double-click within the Dwell Time field of the preset and increase or decrease the time in seconds the camera will remain on the preset during that sequence of the tour.
4. Repeat steps 1 and 2 for each additional preset you want to add to the tour.
5. Click Add to Group.
6. Click Save.
7. Click Exit to return to the main screen.

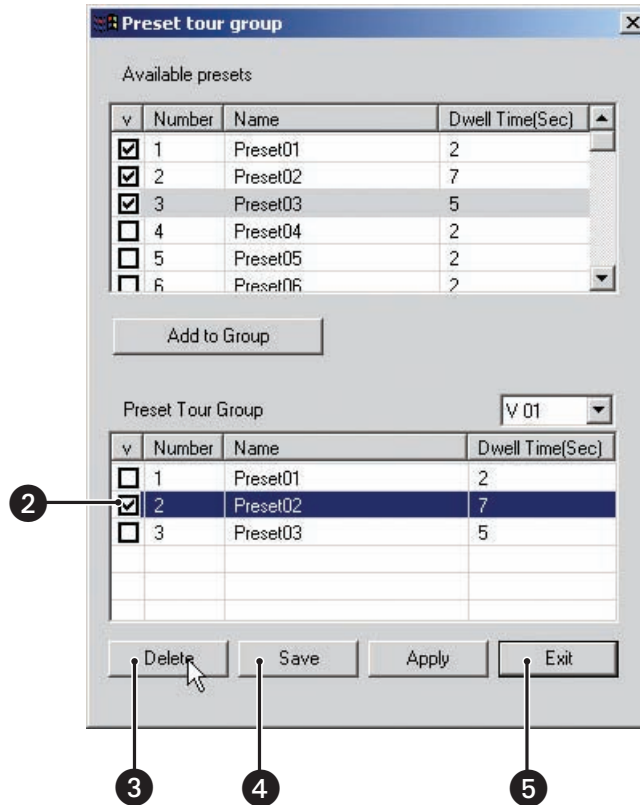


**Figure 46.** Adding Preset to Tour

## Deleting Presets from a Tour

To delete presets from a tour:

1. Access the Preset tour group dialog box. For information on accessing the Preset tour group dialog box, refer to [Accessing a Preset Tour Group](#) on page 73.
2. Click the check box next to one or more presets you want to delete from the preset tour group.
3. Click Delete.
4. Click Save.
5. Click Exit to return to the main screen.








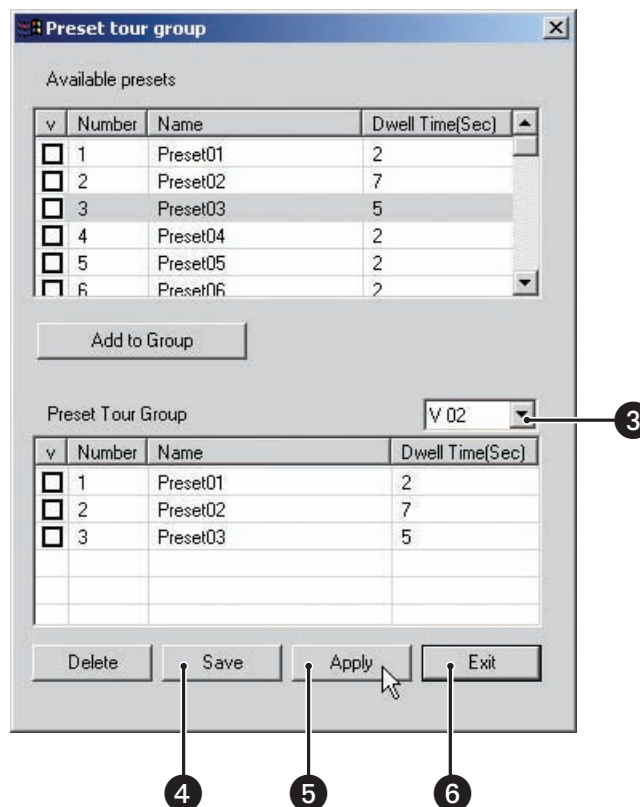
**Figure 47.** Deleting Preset from Tour

## ACTIVATING A PRESET TOUR

This section describes how to activate a preset tour. You can save a preset tour for later use without engaging the tour by not performing step 5 and continuing on to step 6 without clicking Apply.

To activate a preset tour:

1. On the DX8000 toolbar, click .
2. Click  and then  to bring up the preset tour dialog box.
3. From the drop-down box, select the preset tour (1-4) you want to activate.
4. Click Save.
5. Click Apply.
6. Click Exit to return to the main screen.
7. Click  on the PTZ keypad to exit programming mode.
8. Click  on the PTZ keypad to activate the tour.



**Figure 48.** Activating a Preset Tour

To reactivate the last preset tour you configured:

- ➔ On the keypad, click Preset.

## DEACTIVATING A PRESET TOUR

To deactivate a preset tour, do one of the following:

- ➔
- Use the mouse to move the on-screen PTZ control.
  - Activate a PTZ preset.

# Working in Playback Mode

Recorded video can be played back one channel at a time on the DX8000. Like live video, recorded video is viewed from the camera view panels on the main screen. Refer to [Understanding View Panes and Panels](#) on page 44 for information on view panels. Only users with Standard User access and higher are allowed to view recorded video.

This section describes how use the Playback mode and includes the following topics:

- [Accessing Playback Mode](#) on page 79
- [Assigning Cameras to View Panels](#) on page 79
- [Playback On-Screen Display \(OSD\)](#) on page 79
- [Playback Controls](#) on page 80
- [Playback Timeline](#) on page 82
- [Playing Back Video by Time](#) on page 83
- [Playing Back Video by Event](#) on page 84
- [Operating Playback Digital Zoom](#) on page 85
- [Viewing Video in the Deinterlaced Mode](#) on page 112
- [Viewing Live and Playback Video Simultaneously](#) on page 112

## ACCESSING PLAYBACK MODE

To access the Playback mode:

➔ On the DX8000 toolbar, click [Live](#).

## ASSIGNING CAMERAS TO VIEW PANELS

To assign a camera to a view panel:

1. Drag a camera from the Site tree onto a camera view pane.
2. Repeat this process for up to 36 cameras.


## PLAYBACK ON-SCREEN DISPLAY (OSD)

The on-screen display for playback is identical to live view with the exception of a date/time field in place of the PTZ designator.

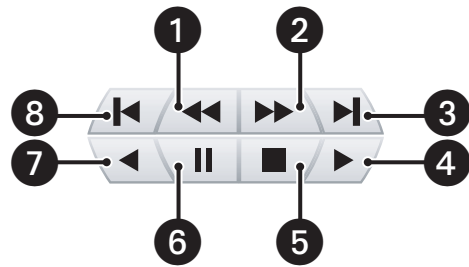


**Figure 49.** Playback OSD

# PLAYBACK CONTROLS

Use the playback controls to start playback, control direction, and adjust speed. Click  at any time to return to live view.

The following figure shows the DX8000 playback controls.



**Figure 50.** Playback Controls

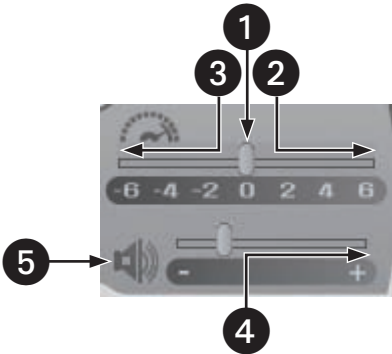
The following table describes the parts of the playback controls.

**Table R.** Parts of the Playback Controls

Item	Part	Description
1	Frame-By-Frame Reverse	Each frame is displayed in reverse with each click of the Frame-by-Frame Reverse button.
2	Frame-By-Frame Forward	Each frame is displayed in the forward direction with each click of the Frame-by-Frame Forward button.
3	Fast Forward to End	Advances the bookmark to the end of the latest recorded video.
4	Play Forward	Initiates normal playback of recorded video in the forward direction.
5	Stop	Stops playback control activity and returns to the Live View mode.
6	Pause	Pauses video playback in the forward or reverse direction.
7	Play Reverse	Initiates normal playback of recorded video in the reverse direction.
8	Rewind to Beginning	Returns the bookmark to the start of the earliest recorded video.



The following figure shows the DX8000 playback speed and volume controls.



**Figure 51.** Playback Speed and Volume Controls

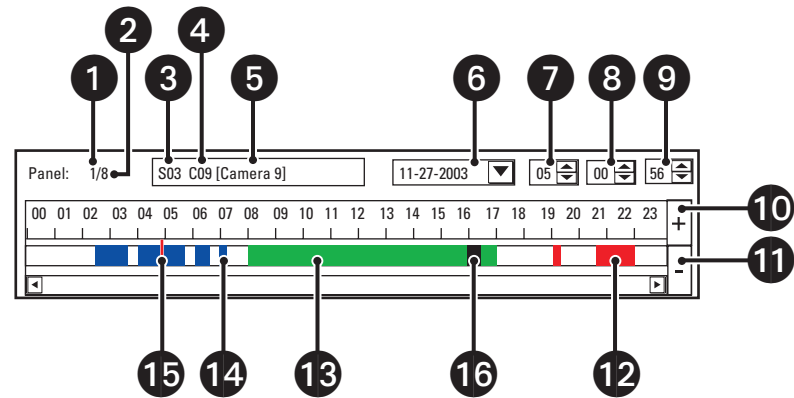
The following table describes the parts of the playback speed and volume controls.

**Table S.** Parts of the Playback Speed and Volume Controls

Item	Part	Description
1	Normal	Playback speed is at normal rate.
2	Faster	Playback speed is increased to a faster rate.
3	Slower	Playback speed is reduced to a slower rate.
4	Louder	Volume is increased to a higher level or decreased to a lower level.
5	Mute	Volume is silenced.

# PLAYBACK TIMELINE

The playback timeline is used to select a day and time to begin playback. The timeline includes a horizontal slider that can be moved to select playback time over a 24-hour period. Time periods containing recorded video are represented as color-coded segments of the timeline. The following figure illustrates the timeline color-coding scheme.



**Figure 52.** Playback Timeline

The following table describes the parts of the playback timeline control.

**Table T.** Parts of the Playback Timeline Control

Item	Part	Item	Part
1	Currently displayed view panel	9	Selected second
2	Total number of view windows	10	Increase timeline detail
3	Site number	11	Decrease timeline detail
4	Camera number	12	Alarm recording
5	Camera name	13	Normal recording
6	Selected date	14	Motion detection recording
7	Selected hour	15	Timeline slider
8	Selected minute	16	Instant recording

## PLAYING BACK VIDEO BY TIME



This section describes how to play back video by time. The time is displayed in 24-hour clock format. You can select the time by moving the slider along the timeline.

This section includes the following topics:

- [Starting Playback from a Specific Point in Time](#) on page 83
- [Understanding Instant Playback](#) on page 83

### STARTING PLAYBACK FROM A SPECIFIC POINT IN TIME

To start video playback from a particular point in time:

1. On the DX8000 toolbar, click .
2. Select a camera by clicking it in the Site tree. You can also select the camera from a view pane if the camera appears in the panel.
3. In the Timeline section, do the following:
  - a. In the Date Selection drop-down box, select the day that you want playback to begin.
  - b. Use the spinner buttons to select the time.
4. Click  to begin viewing.

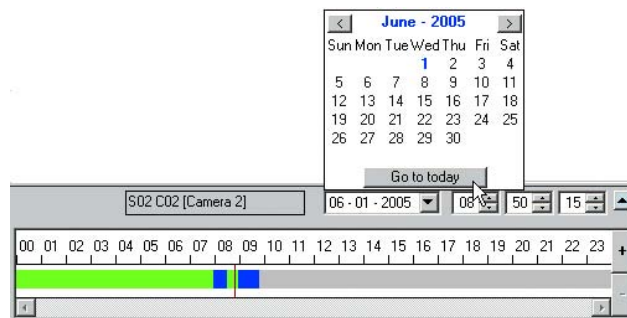


Figure 53. Date Selection Drop-down Box

### UNDERSTANDING INSTANT PLAYBACK

The DX8000's ability to perform instant playback of video is limited by a one-minute delay interval. The DX8000 has a built-in latency of approximately one minute between the time that video is captured and when it is written to the hard disk. This delay exists to ensure that video is accurately stored and that the DVR's database is updated correctly.

The delay interval is not affected if the DX8000 is in the alarm or motion record mode. In this case, the pre-alarm or pre-motion time period does not become a factor in determining the delay interval.

To initiate an instant playback:

- ➔ On the playback control, click Instant Playback. The timeline is zoomed to the last two to three minutes of data.

The user has the ability to view video that is just recorded. This video image resides in memory and has not yet been stored on the hard drive. The color of the timeline will be green. This is because the system cannot tell what the data characteristic is while the data resides in memory.

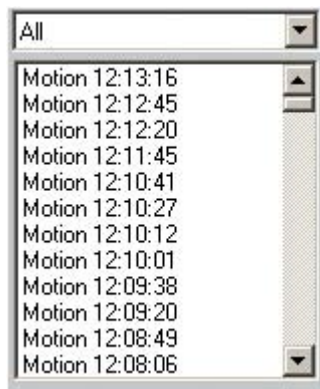
For example, if this data is recorded from a camera configured to monitor motion, and there is no motion activity, the data will not be stored on the hard disk drive.

## PLAYING BACK VIDEO BY EVENT


Users with Standard User access and higher can search video by events, such as motion detection or alarm activation. A sensor event is identical to an alarm event.

To play back video recorded during an alarm or motion event:

1. On the DX8000 toolbar, click .
2. From the DX8000 menu bar, choose View > Index View. The Event Type drop-down box is displayed.



**Figure 54.** Event Type Drop-down Box

3. Select a camera by clicking it in the Site tree.
4. In the Event Type drop-down box, select the day that you want playback to begin.
5. In the Event Type drop-down box, select the event type you want to view. Options are as follows:
  - All
  - None
  - Motion
  - Alarm in
  - ATM/POS
  - Video Loss
6. Select an event from the listing.
7. On the playback control, click  to begin viewing.

## OPERATING PLAYBACK DIGITAL ZOOM

Video playback can be zoomed using a control keypad or the mouse when the DX8000 is in the Playback or Search mode. In Playback mode, the on-screen PTZ feature is replaced with the mouse-activated digital zoom. Playback digital zoom is also available in Search mode. For information on the Playback mode, refer to [Working in Playback Mode](#) on page 79. For information on the Search mode, refer to [Working in Search Mode](#) on page 88.


This section describes how to operate playback digital zoom, and includes the following topics:

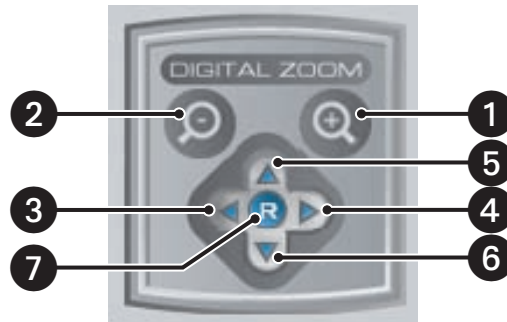
- [Zoom Using the Digital Zoom Control](#) on page 85
- [Zoom Using the Mouse](#) on page 86
- [Panning a Zoomed Image](#) on page 87
- [Working in Playback Mode](#) on page 79
- [Working in Search Mode](#) on page 88

### ZOOM USING THE DIGITAL ZOOM CONTROL

The digital zoom feature is accessible when the DX8000 is in the Playback or Search mode. For information on the Playback mode, refer to [Working in Playback Mode](#) on page 79. For information on the Search mode, refer to [Working in Search Mode](#) on page 88.

To zoom using the digital zoom control:

1. To place the DX8000 in the Playback or Search mode, do one of the following:
  - On the DX8000 toolbar, click [Live](#).
  - On the DX8000 toolbar, click [Search](#).
2. Click  to start video playback.
3. Use the Digital Zoom control to zoom and pan video playback.



**Figure 55.** Playback Digital Zoom Control

The following table describes the parts of the Digital Zoom control.

**Table U. Parts of the Digital Zoom Control**

Item	Part	Description
❶	Zoom In	Allows you to magnify the entire pane. Click the Zoom In button to magnify to the next preset magnification level (x1–6).
❷	Zoom Out	Allows you to reduce to the previous preset magnification. Click the Zoom Out button to reduce to the previous magnification level.
❸	Pan Left	Allows you to move the magnified playback image to the left.
❹	Pan Right	Allows you to move the magnified playback image to the right.
❺	Pan Up	Allows you to move the magnified playback image up.
❻	Pan Down	Allows you to move the magnified playback image down.
❼	Zoom Restore	Allows you to return the zoomed image to the original size.


## ZOOM USING THE MOUSE

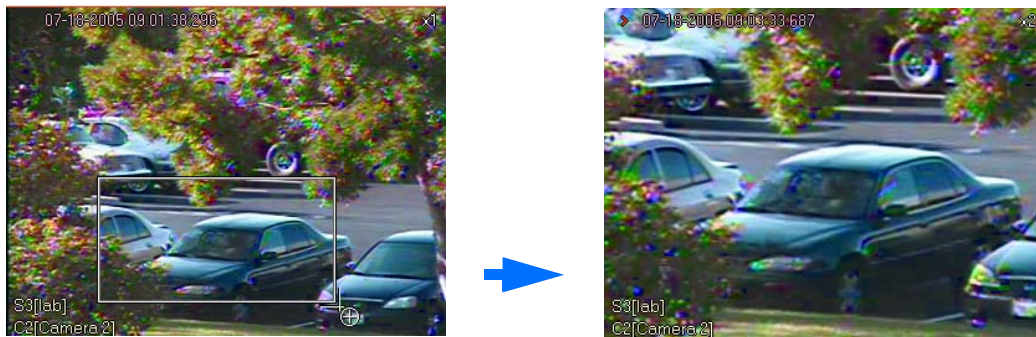
The DX8000 allows you to use the mouse to drag a selection region (rectangle) around a specific area of a pane to zoom in and out. A small rectangle about 0.25 inches (6.4 mm) square provides a x6 zoom factor. As the selection area increases in size, the zoom in/out factor decreases: x5, x4, x3, x2, and x1.

- If you use the mouse to select an area about 0.25 inches (6.4 mm) in size, the zoom feature performs as follows:
  - If zooming in, the zoom factor is at x6. In this case, the selected viewing area is zoomed to the largest size.
  - If zooming out, the zoom factor is at x6. In this case, the selected viewing area is zoomed to the original size.
- If you use the mouse to select the entire pane, the zoom feature performs as follows:
  - If zooming in, the zoom factor is at x1. In this case, the selected viewing area is slightly enlarged. You would have to perform many zoom in operations to arrive at the largest zoom size.
  - If zooming out, the zoom factor is at x1. In this case, the selected viewing area is slightly reduced. You would have to perform many zoom out operations to arrive at the original size.
- You can also use the hand tool and the mouse scroll wheel to zoom in and out.

The zoom factor is displayed in the upper-right corner of the pane. The effective zoom in factor is displayed after the zoom operation is performed. The effective zoom out factor is not displayed.

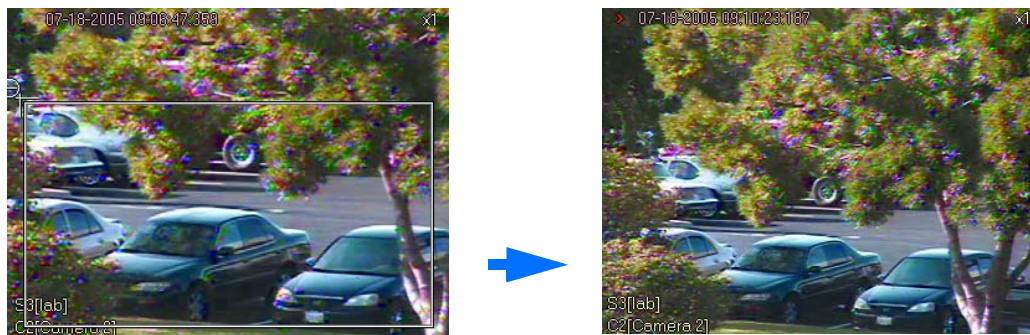
To zoom using the mouse:

1. To place the DX8000 in the Playback or Search mode, do one of the following:
  - On the DX8000 toolbar, click [Live](#).
  - On the DX8000 toolbar, click [Search](#).
2. Click  to start video playback.
3. Do the following:
  - a. To zoom in, click and drag the mouse diagonally in a *downward* direction to your right.



**Figure 56. Zoom In Using Mouse**

- b. To zoom out, click and drag the mouse diagonally in an *upward* direction to your left.



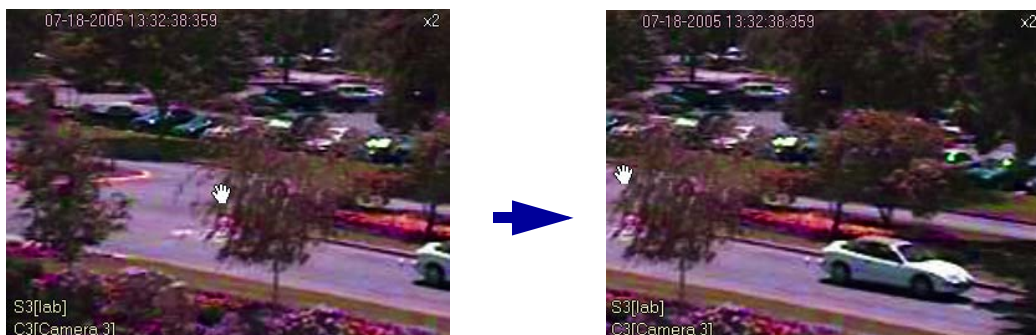
**Figure 57. Zoom Out Using Mouse**

## PANNING A ZOOMED IMAGE

This section describes how to use the hand tool and mouse wheel to zoom in and out.

To pan a zoomed portion of video within the view panel:

1. To place the DX8000 in the Playback or Search mode, do one of the following:
  - On the DX8000 toolbar, click [Live](#).
  - On the DX8000 toolbar, click [Search](#).
2. Right-click within the view panel. The mouse pointer now resembles a hand.
3. Click and drag the mouse using the left mouse button in the direction you want to move the video image.
4. Right-click again to return to zoom mode.



**Figure 58. Panning Zoomed Video with the Mouse**

## Working in Search Mode

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The DX8000 Series DVR supports four video search methods: index, thumbnail, POS, and pixel. For information about the user access level required to search video data, refer to [Definition of User Access Levels](#) on page 196.

To enter the Search mode:

➔ On the DX8000 toolbar, click [Search](#).

This section describes how to use the Search mode and includes the following topics:

- [Search Window](#) on page 89
- [Displaying a Deinterlaced Image in the Search Mode](#) on page 92
- [Index Video Search](#) on page 92
- [Thumbnail Video Search](#) on page 94
- [POS Search](#) on page 96
- [Pixel Video Search](#) on page 107
- [Working with Special View and Search Methods](#) on page 112

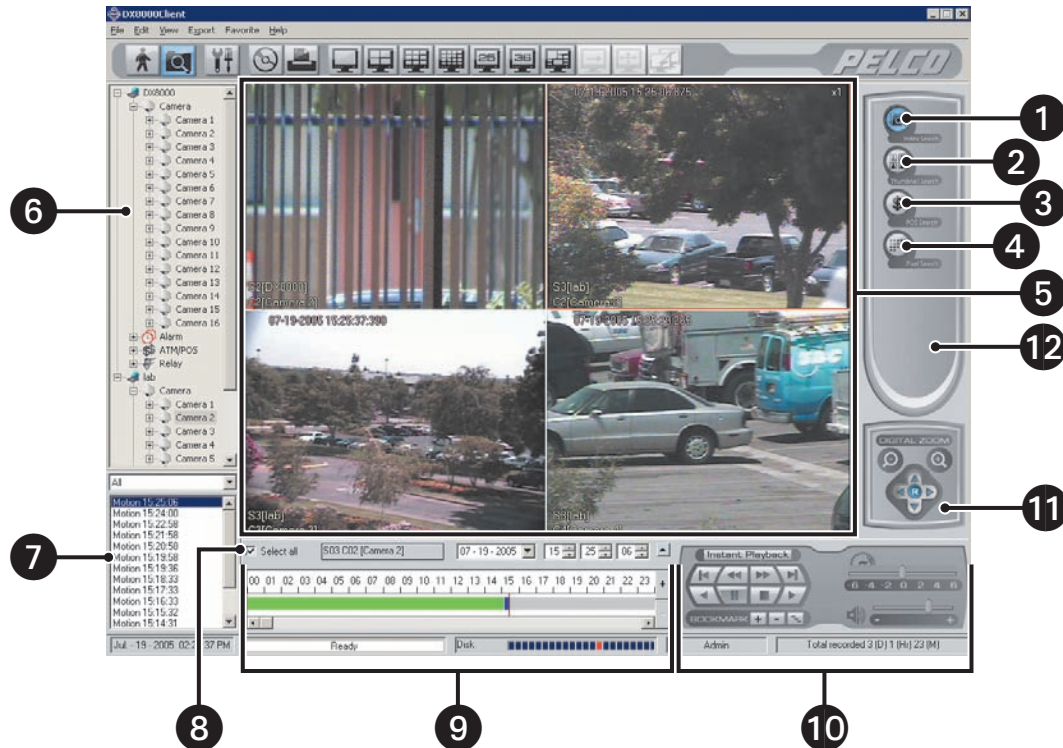


## SEARCH WINDOW

The search window facilitates access to the search capabilities of the DX8000. Available search methods include index, thumbnail, and pixel. Each search method allows users with Standard User access and higher to locate video data instantly using criteria such as time of day or changes in window pixels.

As in Playback mode, digital zoom, export, and print features are available in Search mode. For more information, refer to [Operating Playback Digital Zoom](#) on page 85, [Exporting Video](#) on page 113, and [Printing Images](#) on page 123.

The following figure shows the parts of the DX8000 window in the Search mode.



**Figure 59.** DX8000 Client Search Mode Window

The following table describes the parts of the DX8000 window in the Search mode.

**Table V. Parts of the DX8000 Window in Search Mode**

Item	Part	Description
❶	Index Search	Allows users to search motion and alarm events listed in the event index panel.
❷	Thumbnail Search	Allows users to visually search video that has been recorded over a 24-hour period. Video is presented as a series of thumbnail images. Each thumbnail represents the first image recorded during a specified period of time. Thumbnails can be expanded and collapsed to represent hourly, 10-minute, and 1-minute intervals.
❸	POS Search	Allows users to search ATM/POS transaction text data.
❹	Pixel Search	Allows users to search any 24-hour period of recorded video automatically for changes in screen pixels.
❺	View Window	Displays search video, image thumbnails, and pixel grid.
❻	Site tree	Facilitates top-down, hierarchical management of DX8000 resources, such as servers, cameras, alarms, and relays.
❼	Event Index Panel	Lists motion and alarm events over the 24-hour time period specified in the playback timeline.
❽	Select All Check Box	Enables playback for all visible view panels when selected. If this check box is deselected, only the selected channel will play. This control is only available while using Index Search.
❾	Playback Timeline	Displays a 24-hour timeline marked with color-coded video events. Allows user to select a date and time for playback.
❿	Playback Control Panel	Provides buttons to control video playback. Includes forward and reverse playback and still image. Also provides controls for playback speed and volume.
⓫	Playback Zoom Control	Provides access to digital zoom features during playback.
⓬	Search Control	Provides access to the index, thumbnail, POS, and pixel search controls.

## DISPLAYING A DEINTERLACED IMAGE IN THE SEARCH MODE

If you are searching for an image that is recorded at 4CIF at a low frame rate per second, the viewed image might move or tear. The View menu's Deinterlaced Image option is used to enhance the image during a search activity.



To search video using the deinterlaced option:

1. On the menu bar, click View > Display deinterlaced image.
2. On the DX8000 toolbar, click . The DX8000 is placed in the Search mode.

## INDEX VIDEO SEARCH

Index search allows a user to search video by events, such as motion detection or alarm activation. Events are listed chronologically and by type. To ensure that the proper camera channel is selected, check the camera information box above the playback timeline or verify that the desired view panel is framed with a thin red outline.

To search video by motion or alarm events:

1. On the DX8000 toolbar, click .
2. On the DX8000 Search control, click .
3. On the DX8000 toolbar, click a view panel division button.
4. From the Site tree, drag the camera channel you want to search onto one of the view panels.
5. Click the view panel of the channel you want to search.
6. From the drop-down box on the playback timeline, select the day you want playback to begin.
7. Select the event type you want to view from the event type drop-down box.

Only events recorded for the selected camera are listed in the index. A sensor event is identical to an alarm event. Options are as follows:

- All
- None
- Motion
- Alarm in
- ATM/POS
- Video Loss

8. Select an event from the index.
9. Verify that the "Select all" check box is selected. Deselecting the "Select all" check box will disable playback for all view panels except the channel being searched.

The DX8000 allows you to view playback on multiple cameras in addition to the camera being searched. This feature is valuable if you want to examine a variety of views recorded at the time a certain event was detected.

10. Click  to begin viewing.

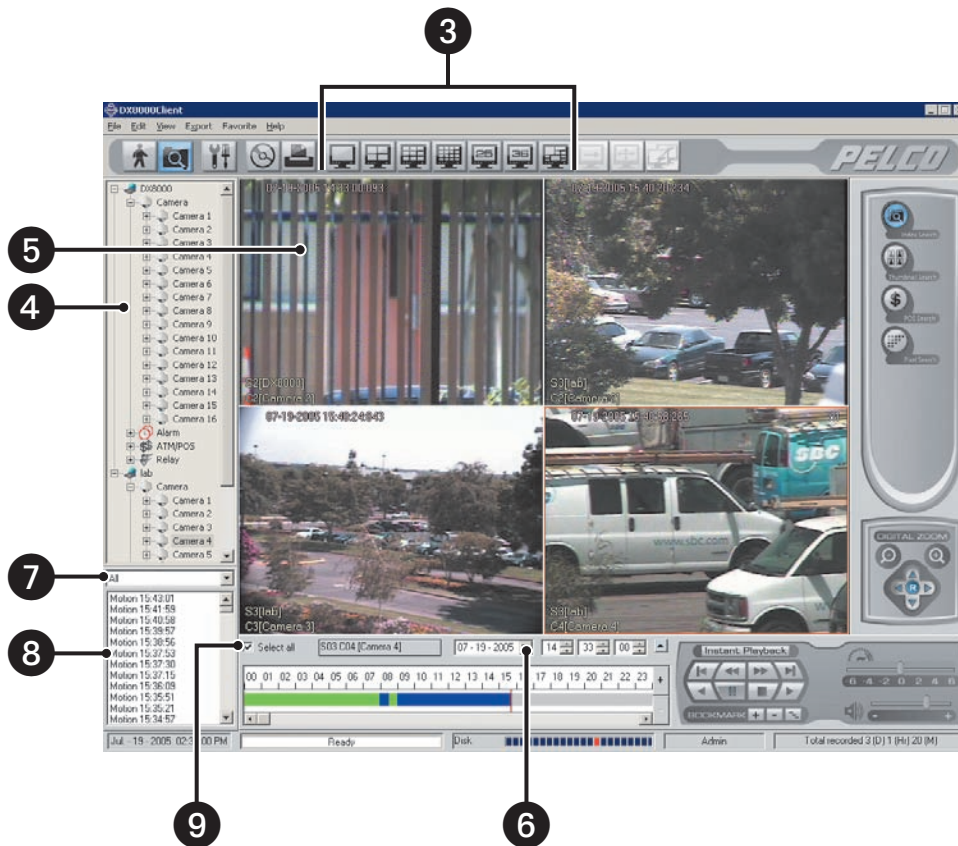










Figure 60. DX8000 Client Index Search Screen

## THUMBNAIL VIDEO SEARCH


Thumbnail search allows users to visually search video that has been recorded over a 24-hour period. Video is presented as a series of thumbnail images. Each thumbnail represents the first image recorded during a specified period of time. Thumbnails can be expanded and collapsed to represent hourly, 10-minute, and 1-minute intervals.

To search video visually using thumbnail images:

1. On the DX8000 toolbar, click .
2. On the DX8000 Search control, click .
3. Select a camera from the Site tree.
4. From the drop-down box, select the date on which you want to begin your search.
5. Click the thumbnail for the hour you want to begin searching.
6. Click  to change the thumbnail time range to shorter intervals, or click  to change the thumbnail time range to longer intervals.
  - Click  to change from 1-hour intervals to 10-minute intervals.
  - Click  again to change from 10-minute intervals to 1-minute intervals.
  - Click  once to change from 1-minute intervals to 10-minute intervals.
  - Click  again to change from 10-minute intervals to 1-hour intervals.
7. Click the thumbnail of the interval you want to search.

8. Click  to view video.

Double-clicking a thumbnail image will enlarge the image and begin playback.

9. Click  to return to thumbnail images.



**Figure 61. DX8000 Client Thumbnail Search Screen**

## POS SEARCH

The DX8000 allows a user to search any 24-hour period of recorded POS video and data. To record ATM/POS video and data, the ATM/POS devices and DX8000 must first be connected and configured as follows:

- Physically connect the ATM/POS devices to the DX8000.
- Set up camera-to-ATM/POS device linking.
- Configure the DX8000 ATM/POS settings for each attached ATM/POS device.
- Start an ATM/POS transmittal and verify that the DX8000 is receiving the ATM/POS video and data.

For information about setting up the DX8000 for ATM/POS applications, refer to the following sections in the DX8000 Operations and Programming manual:

- *Linking Relay Outputs to ATM/POS Events*
- *Linking Cameras to Record in Response to ATM/POS Events*
- *Linking Presets and Patterns to ATM/POS Events*
- *Setting Up ATM/POS Device Communication Ports*
- *Setting UP ATM/POS Device Properties*

This section describes how to use the POS search feature and includes the following topics:

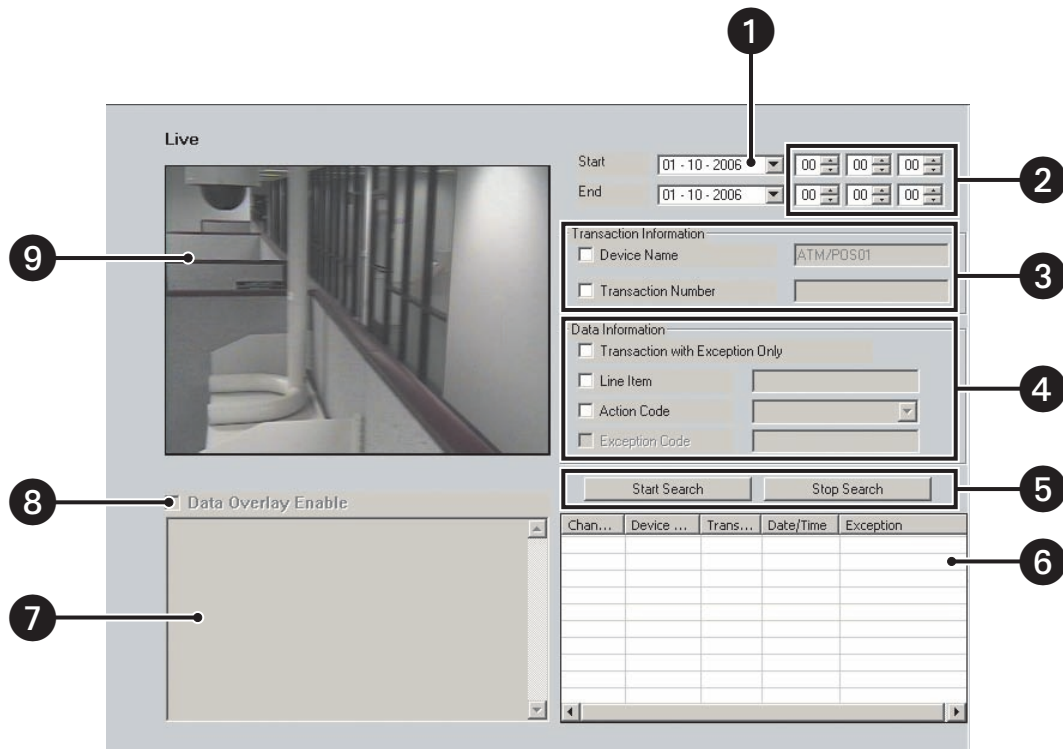
- [Understanding the POS Search View](#) on page 97
- [Searching and Displaying POS Data by Device Name](#) on page 100
- [Searching by POS Transaction Number](#) on page 102
- [Searching for All Transactions with Exceptions](#) on page 103
- [Searching for Transactions that Satisfy Specific Exceptions](#) on page 104
- [Searching for Transactions by Line Item](#) on page 105
- [Searching for Transactions by Action Code](#) on page 106

## UNDERSTANDING THE POS SEARCH VIEW

To enter the POS Search mode:

1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.

The following figure shows the parts of the POS search view.



**Figure 62.** POS Search View

The following table describes the parts of the POS search view.

**Table W. Parts of the POS Search View**

Item	Part	Description
1	Date	Date range for which to search the video and data.
2	Time	Time range based on a 24-hour time period for searching POS events.
3	Transaction Information	<p>Allows POS search by transaction information options as follows:</p> <ul style="list-style-type: none"> <li>• <b>Device Name:</b> The ATM/POS device linked to a specific camera. In this case, selecting a camera linked to an ATM/POS device automatically inserts the name of the ATM/POS device in the Device Name box.</li> <li>• <b>Transaction Number:</b> A number assigned by the ATM/POS device that is printed on the sales are transaction receipt.</li> </ul>
4	Data Information	<p>Allows POS search by data information options as follows:</p> <ul style="list-style-type: none"> <li>• <b>Transaction with Exception Only:</b> Finds all transactions for which an exception is defined.</li> <li>• <b>Line Item:</b> Allows you to search POS data by a specific transaction line item, based on the following guidelines: <ul style="list-style-type: none"> <li>– Line item entries are not case sensitive. Enter lower or uppercase characters.</li> <li>– Specify the asterisk (*) wildcard.</li> <li>– Search by a single word or multiple words appearing in a transaction line.</li> <li>– Enter the first few characters of the <i>first</i> word appearing in the transaction and the wildcard. As an example, for a line item containing the entry “small orange juice,” enter sma*. The search returns all transactions that contain the word “small.”</li> <li>– Enter the first few characters of the <i>second</i> word in a transaction and the wildcard. As an example, for a line item containing the entry “small orange juice,” enter: ora*. The search returns all transactions that contain the word “orange.”</li> <li>– Search by abbreviation. An example, for a line item containing the entry “Soda 6-pk,” enter 6-pk. The search returns all transactions that contain the abbreviation “6-pk.”</li> </ul> </li> <li>• <b>Action Code:</b> A two-letter abbreviation designating a specific action code. For information about action codes, refer to the <i>Setting Up ATM/POS Device Properties</i> section in the Operations and Programming manual.</li> <li>• <b>Exception Code:</b> A predefined transaction filter used to detect a specific data structure within the ATM/POS transaction data. For information about exceptions, refer to the <i>Setting Up ATM/POS Exceptions</i> section in the Operations and Programming manual.</li> </ul>
5	Start and Stop	<p><b>Start:</b> Initiates a search event.</p> <p><b>Stop:</b> Ends a search event.</p>



**Table W. Parts of the POS Search View (Continued)**

Item	Part	Description
6	POS Search Table	<p>Lists the data discovered in response to the POS options selected for the transaction and data information.</p> <ul style="list-style-type: none"> <li>• <b>Channel Number:</b> From 1–16.</li> <li>• <b>Device Name:</b> By default, ATM/POS01 to ATM/POS16. The device name can be changed.</li> <li>• <b>Transaction Number:</b> Number assigned by the ATM/POS device to the transaction data.</li> <li>• <b>Date/Time:</b> Date and time transaction is recorded.</li> <li>• <b>Exception:</b> Yes if an exception filter is active for the transaction data has an exception. No if the transaction does not have an exception filter.</li> </ul> <p>The transaction and data information are based on the ATM/POS configuration settings derived from the following:</p> <ul style="list-style-type: none"> <li>• Data format</li> <li>• ATM/POS exceptions</li> <li>• Exception action codes</li> </ul> <p>For information about setting up ATM/POS transaction and data options, refer to the <i>Setting Up ATM/POS Device Properties</i> section in the Operations and Programming manual.</p>
7	Data Window	Area where recorded transaction data is displayed.
8	Data Overlay Box	The function is not supported at this time.
9	Video Window	Area where live and playback (recorded) video is viewed. Playback video is started at the date and time specified for the respective transaction data as shown in the POS Search table. The DX8000 playback controls are used to view playback video.

## SEARCHING AND DISPLAYING POS DATA BY DEVICE NAME

You can perform a general search for POS transaction data record for a particular ATM/POS device and its associated camera. Use the date and time, and ATM/POS device name as the search criteria. The search results contain all POS transactions recorded for that device according to the specified date and time.

### Searching POS Data by Device Name

To search POS transaction data by ATM/POS device name:





1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.
3. To select a channel, in the DX8000 Site tree, click a camera that is linked to an ATM/POS device.  
By default, the name of the ATM/POS device linked to the selected camera/channel is displayed in the Device Name text box. In this case, the Device Name text box is deselected.
4. Select the date and time for the POS search event as follows:
  - a. Select the Start date.
  - b. Select the End date.
  - c. Select the End time.
  - d. Select the Start time.
5. In the Transaction Information section, click the check box to select Device Name. The Device Name text box is available.
6. Verify that the ATM/POS device name displayed in the Device Name text box is the correct device for the search.
7. Click Start Search. The POS Search Table is populated with POS transaction data.

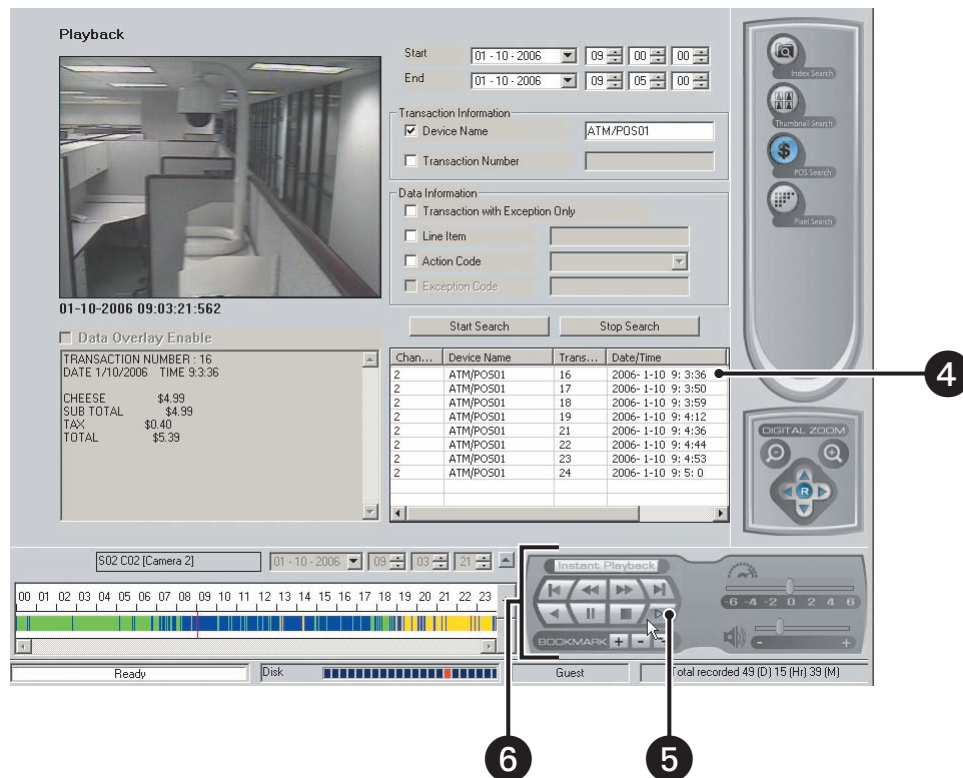


Figure 63. POS Transaction Search by Device Name

## Displaying POS Data Discovered by Device Name

To display a POS transaction and its associated video:

1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.
3. Perform a POS search by device name. For information about performing a search by ATM/POS device name, refer to [Searching POS Data by Device Name](#) on page 100.
4. In the POS Search Table, click a transaction. The transaction data is displayed in the Data window.
5. On the playback control, click Play. The video recorded for the selected POS transaction is played back and is displayed in the Video window.
6. Use the playback control to stop or pause playback, reverse playback, and so forth.





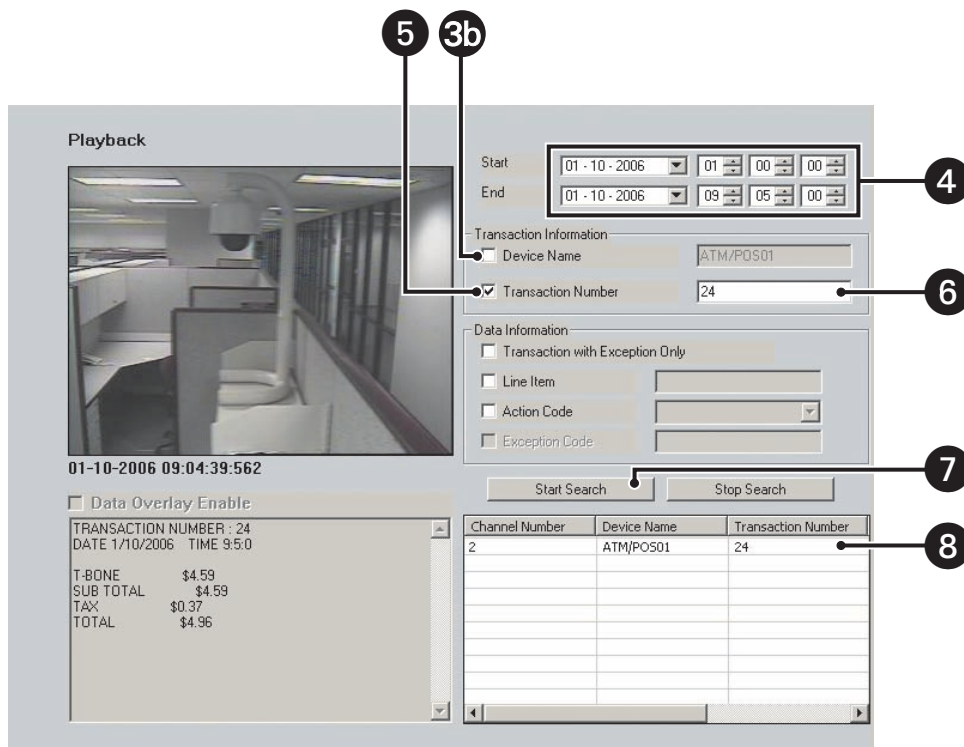
**Figure 64.** Display a POS Transaction Search by Device Name

## SEARCHING BY POS TRANSACTION NUMBER

The DX8000 allows you to search for a POS event by transaction number. In this case, you must specify the channel, date, and a time window in which the transaction is recorded.

To search for an POS event by transaction number:

1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.
3. To select a device name, do one of the following:
  - In the DX8000 Site tree, click a camera that is linked to an ATM/POS device.  
By default, the name of the ATM/POS device linked to the selected camera/channel is displayed in the Device Name text box. In this case, the Device Name text box is deselected.
  - Do the following:
    - (1) In the Transaction Information section, click the check box to select Device Name. The Device Name text box is available.
    - (2) Type the ATM/POS device name in the Device Name text box.
4. Select the date and time that you want to search for the transaction number.
5. In the Transaction Information section, click the check box to select Transaction Number. The Transaction Number text box is available.
6. In the Transaction Number text box, type the transaction number.
7. Click Start Search. If the channel, date, time, and transaction number are valid, the POS transaction is displayed in the POS Search Table.
8. In the POS Search Table, click a transaction entry. The transaction data is displayed in the Data window.
9. On the playback controls, click Forward Playback. The video recorded for the transaction is displayed in the Video window.



**Figure 65.** Searching an POS Event by Transaction Number



## SEARCHING FOR ALL TRANSACTIONS WITH EXCEPTIONS

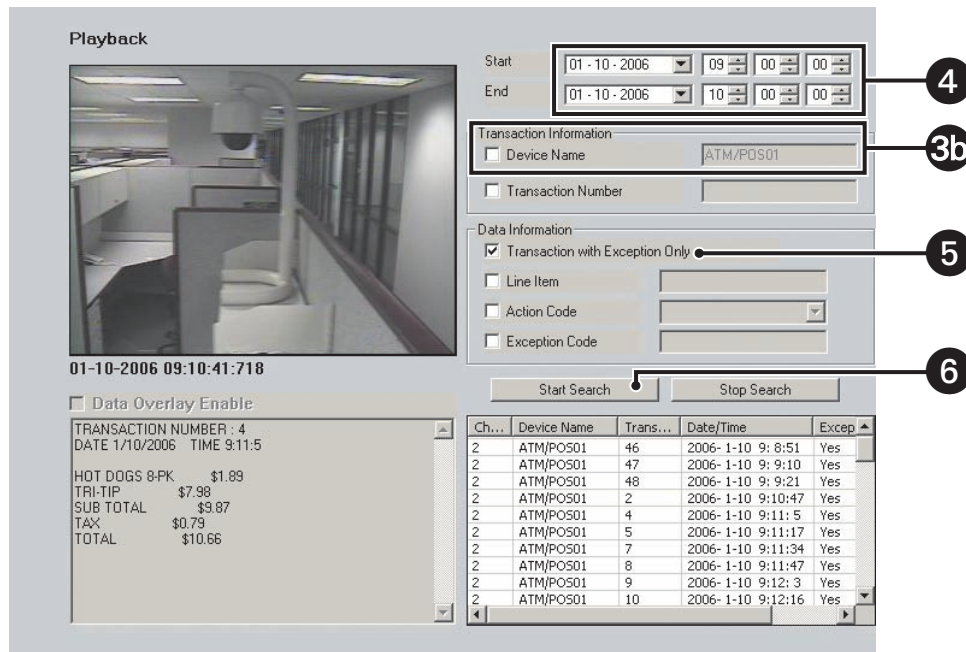
The DX8000 allows you to search for transactions that meet conditions defined by one or more exceptions. In this case, you must configure your search criteria based on the following:

- **Channel:** Camera that captured the video and is linked to the ATM/POS device that produced the transaction data.
- **Date/time:** Date and time window within which the transactions were recorded.

To use an exception to search transaction data, the exception must be created first, before recording the transaction data. If the transaction data is recorded before the exception filter is defined, the exception filter will not find the data structure within the transaction data.

To search for only POS events by transaction with exception:

1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.
3. To select a ATM/POS device, do one of the following:
  - In the DX8000 Site tree, click a camera that is linked to the ATM/POS device.  
By default, the name of the ATM/POS device linked to the selected camera/channel is displayed in the Device Name text box. In this case, the Device Name text box is deselected.
  - Do the following:
    - (1) In the Transaction Information section, click check box to select Device Name. The Device Name text box is available.
    - (2) Type the ATM/POS device name in the Device Name text box.
4. Set the date and time range for the search.
5. In the Data Information section, click check box to select Transaction with Exception Only. The Exception Code check box is available.
6. Click Start Search. If the device name/channel, date, and time are valid, and if transactions with exceptions were recorded during the time range, the transactions are displayed in the POS Search Table.
7. In the POS Search Table, click a transaction. The transaction data is displayed in the Data window.
8. On the playback controls, click Forward Playback. The video recorded for the transaction is displayed in the Video window.



**Figure 66.** Searching for Transaction with Exception Only Events



## SEARCHING FOR TRANSACTIONS THAT SATISFY SPECIFIC EXCEPTIONS

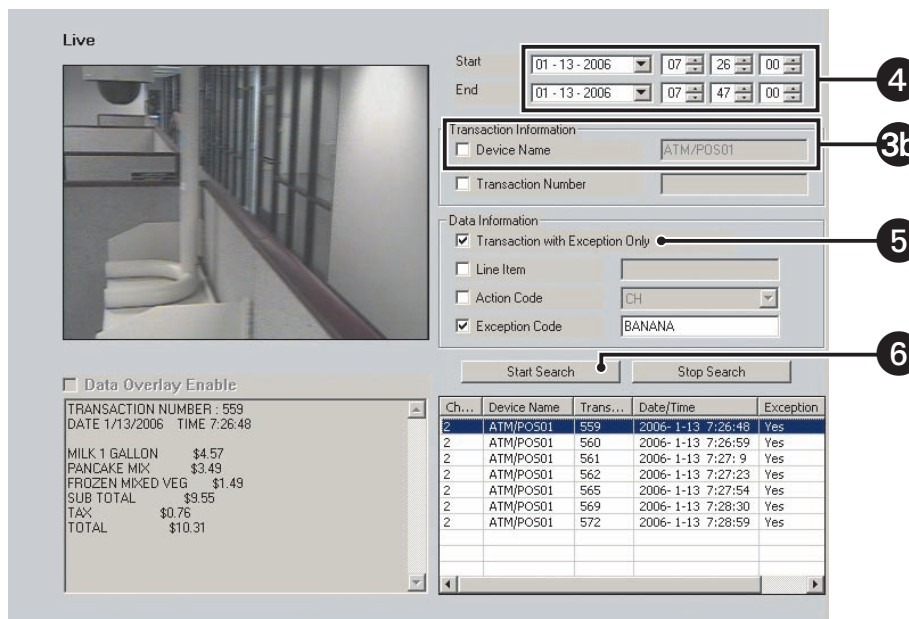
The DX8000 allows you to search for and display ATM/POS transactions that meet conditions as defined by one or more exceptions. You can use specific exception codes to define the search criteria. To use an exception to search transaction data, the exception must be created first, before recording the transaction data. If the transaction data is recorded before the exception filter is defined, the exception filter will not find the data structure within the transaction data.

The search criteria is based on the following:

- **Channel:** Camera that captured the video and is linked to the ATM/POS device that produced the transaction data.
- **Date/time:** Date and time window within which the transactions were recorded.
- **Exception code:** Predefined transaction filter used to detect a specific data structure within the ATM/POS transaction data.

To search for transactions that meet specific exceptions:

1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.
3. To select a ATM/POS device, do one of the following:
  - In the DX8000 Site tree, click a camera that is linked to the ATM/POS device.  
By default, the name of the ATM/POS device linked to the selected camera/channel is displayed in the Device Name text box. In this case, the Device Name text box is deselected.
  - Do the following:
    - (1) In the Transaction Information section, click the check box to select Device Name. The Device Name text box is available.
    - (2) Type the ATM/POS device name in the Device Name text box.
4. Set the date and time range for the search.
5. In the Data Information section, do the following:
  - a. Click the check box to select Transaction with Exception Only. The Exception Code check box is available.
  - b. Click the check box to select Exception Code. The Exception Code text box is available.
  - c. Type the exception code in the text box.
6. Click Start Search. If the device name/channel, date, and time are valid, and if transactions with exceptions were recorded during the time range, the transactions are displayed in the POS Search Table.
7. In the POS Search Table, click a transaction. The transaction data is displayed in the Data window.



The screenshot shows the DX8000 POS Search interface. On the left is a live video feed of an ATM. Below it is a transaction receipt for a milk and pancake mix purchase. On the right is the search control panel. It includes date and time range selectors (Start: 01-13-2006 07:26:00, End: 01-13-2006 07:47:00), a Transaction Information section with 'Device Name' selected and 'ATM/POS01' entered, and a Data Information section with 'Transaction with Exception Only' and 'Exception Code' (BANANA) selected. A 'Start Search' button is at the bottom of the search panel. Below the search panel is a table of search results.

Ch...	Device Name	Trans...	Date/Time	Exception
2	ATM/POS01	559	2006-1-13 7:26:48	Yes
2	ATM/POS01	560	2006-1-13 7:26:59	Yes
2	ATM/POS01	561	2006-1-13 7:27:9	Yes
2	ATM/POS01	562	2006-1-13 7:27:23	Yes
2	ATM/POS01	565	2006-1-13 7:27:54	Yes
2	ATM/POS01	569	2006-1-13 7:28:30	Yes
2	ATM/POS01	572	2006-1-13 7:28:59	Yes

**Figure 67.** Transactions that Satisfy Specific Exception Filters



## SEARCHING FOR TRANSACTIONS BY LINE ITEM

The DX8000 allows you to search for and display ATM/POS transactions that contain a unique line item. Use the asterisk (\*) as a wildcard character to substitute for zero or more characters.

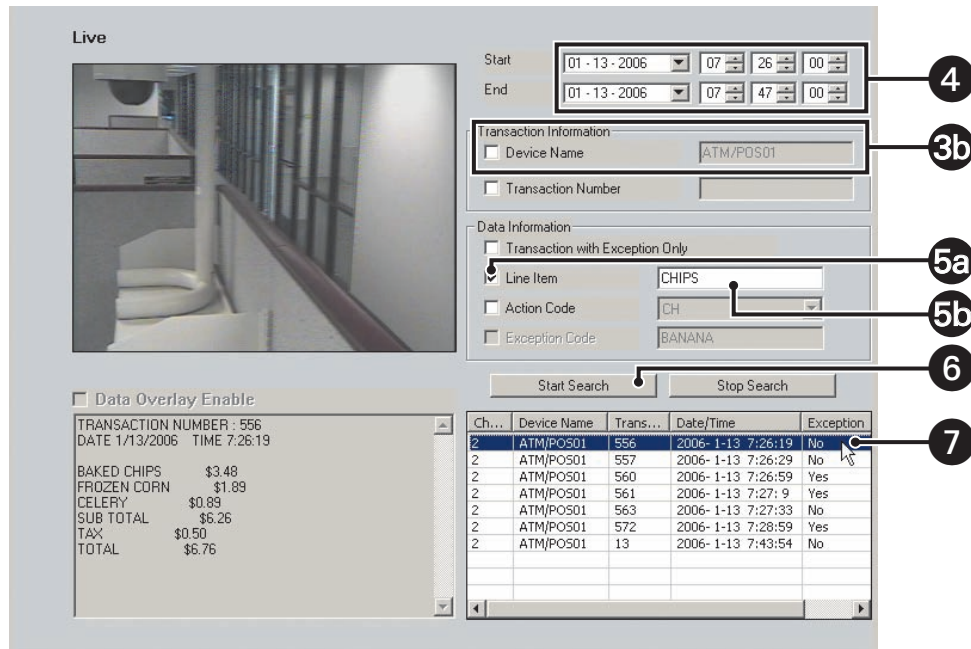
The search criteria is based on the following:

- **Channel:** Camera that captured the video and is linked to the ATM/POS device that produced the transaction data.
- **Date/time:** Date and time window within which the transaction(s) were recorded.
- **Line item:** The line item has the following guidelines:
  - Line item entries are not case sensitive. Enter lower or uppercase characters.
  - Specify the asterisk (\*) wildcard.
  - Search by a single word or multiple words appearing in a transaction line.
  - Enter the first few characters of the *first* word appearing in the transaction and the wildcard. As an example, for a line item containing the entry "small orange juice," enter sma\*. The search returns all transactions that contain the word "small."
  - Enter the first few characters of the *second* word in a transaction and the wildcard. As an example, for a line item containing the entry "small orange juice," enter: ora\*. The search returns all transactions that contain the word "orange."
  - Search by abbreviation. An example, for a line item containing the entry "Soda 6-pk," enter 6-pk. The search returns all transactions that contain the abbreviation "6-pk."

To search for transactions that contain a unique line item:

1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.
3. To select a ATM/POS device, do one of the following:
  - In the DX8000 Site tree, click a camera that is linked to the ATM/POS device.  
By default, the name of the ATM/POS device linked to the selected camera/channel is displayed in the Device Name text box. In this case, the Device Name text box is deselected.
  - Do the following:
    - (1) In the Transaction Information section, click the check box to select Device Name. The Device Name text box is available.
    - (2) Type the ATM/POS device name in the Device Name text box.
4. Set the date and time range for the search.
5. In the Data Information section, do the following:
  - a. Click the check box to select Line Item. The Line Item text box is available.
  - b. Type the name of the line item in the text box.
6. Click Start Search. If the device name/channel, date, and time are valid, transactions containing the line item are displayed in the POS Search Table.
7. In the POS Search Table, click a transaction. The transaction data is displayed in the Data window.





**Figure 68.** Transactions that Contain a Unique Line Item



## SEARCHING FOR TRANSACTIONS BY ACTION CODE

The DX8000 allows you to search for and display ATM/POS transactions by action code. To use an action code to search transaction data, the action code must be created first, before recording the transaction data. If the transaction data is recorded before the action code is defined, the action code will not find the data structure within the transaction data.

The search criteria is based on the following:

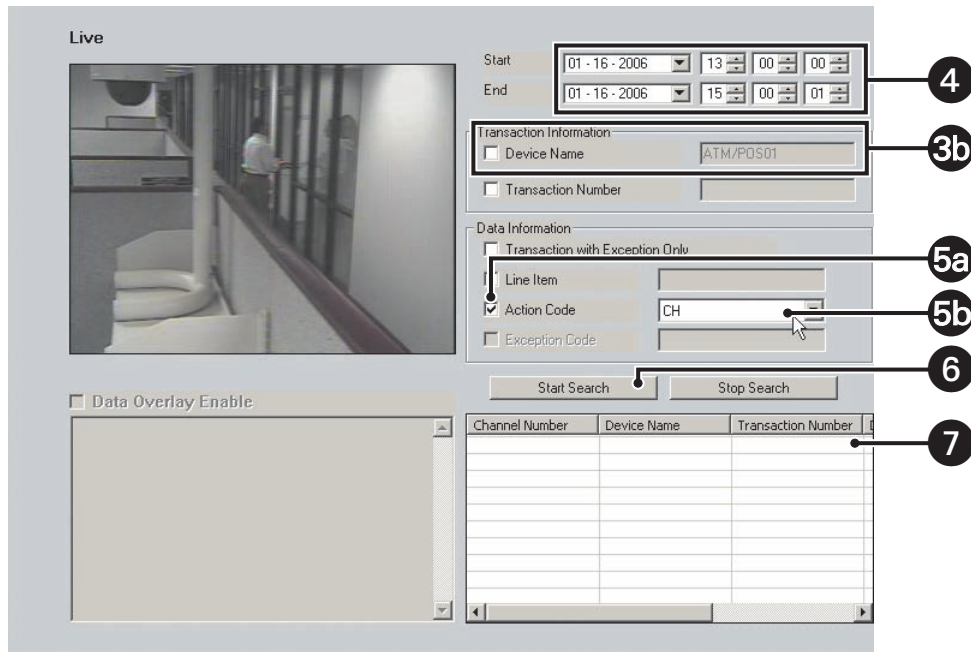
- **Channel:** Camera that captured the video and is linked to the ATM/POS device that produced the transaction data.
- **Date/time:** Date and time window within which the transaction(s) were recorded.
- **Action code:** Special two-character filter that defines a specific transaction event.

To search for transactions by action code:

1. On the DX8000 toolbar, click .
2. On the Search control, click . The POS search view is displayed.
3. To select a ATM/POS device, do one of the following:
  - a. In the DX8000 Site tree, click a camera that is linked to the ATM/POS device.  
By default, the name of the ATM/POS device linked to the selected camera/channel is displayed in the Device Name text box. In this case, the Device Name text box is deselected.
- or
- b. Do the following:
  - (1) In the Transaction Information section, click the check box to select Device Name. The Device Name text box is available.
  - (2) Type the ATM/POS device name in the Device Name text box.
4. Set the date and time range for the search.
5. In the Data Information section, do the following:
  - a. Click the check box to select Action Code. The Action Code drop-down box is available.
  - b. In the Action Code drop-down box, select an action code. For information about action codes, refer to the *Using Action Codes* section in the Operations and Programming manual.



6. Click Start Search. If the device name/channel, date, and time are valid, transactions containing the line item are displayed in the POS Search Table.
7. In the POS Search Table, click a transaction. The transaction data is displayed in the Data window.



**Figure 69.** Searching Transactions by Action Code

## PIXEL VIDEO SEARCH

The DX8000 allows a user to search any 24-hour period of recorded video automatically for changes in screen pixels. This feature can be configured to identify motion events even when motion detection has not been enabled on a camera.

This section describes how to search video by changes in screen pixels and includes the following topics:

- [Searching Video Based on Changes in Screen Pixels](#) on page 107
- [Viewing a Video Thumbnail](#) on page 110

### SEARCHING VIDEO BASED ON CHANGES IN SCREEN PIXELS

DX8000 pixel video search is accomplished in two steps:

- Searching recorded video for changes in screen pixels.



After the search has been completed, the DX8000 displays a series of thumbnails below the search grid. Each thumbnail contains the first image of recorded video for the specified date and time range period.


**NOTE:** A pixel search might not detect obvious movement.

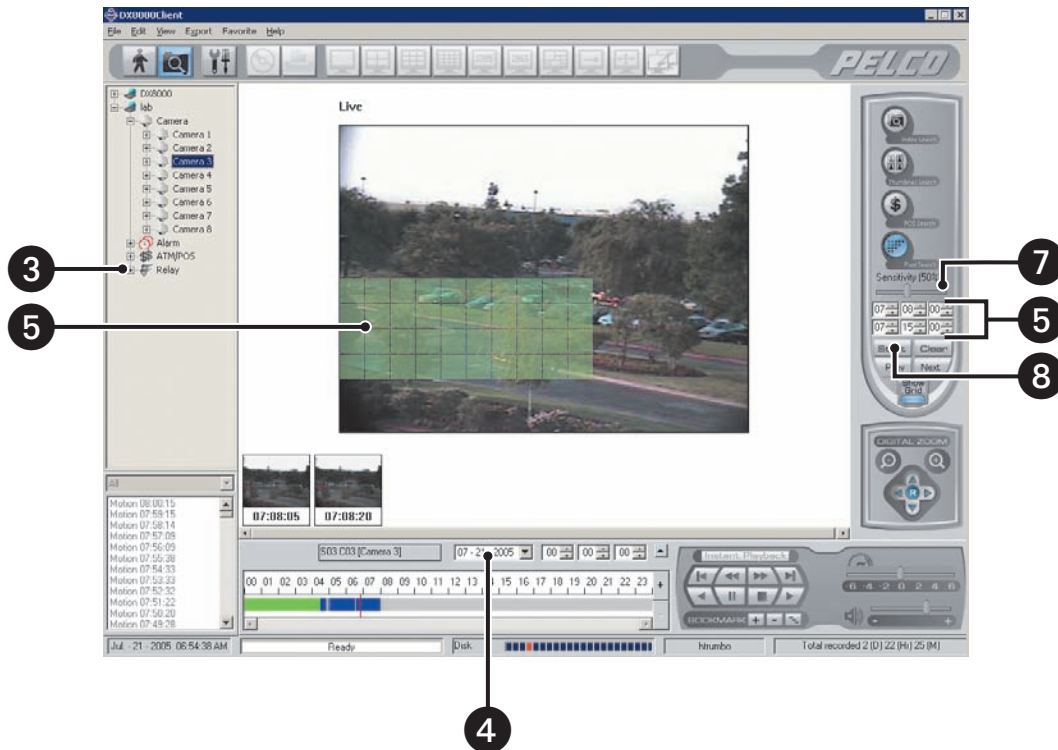
- Viewing the thumbnails.

For information on how to view the video thumbnail, refer to [Viewing a Video Thumbnail](#) on page 110.

To search video by analyzing changes in screen pixels:

1. On the DX8000 toolbar, click .
2. On the Search control, click .
3. Select a camera from the Site tree.
4. From the drop-down box, select the date on which you want to begin your search.



5. Select the start and end times to define your search range.
6. Using your mouse, highlight areas on the grid that you want to search for pixel changes.
  - Hold down the *left* mouse button and drag to *select* areas.
  - Hold down the *right* mouse button and drag to *clear* areas.
7. Adjust the pixel sensitivity threshold. Moving the slider to the left decreases sensitivity and moving it to the right increases sensitivity.)
8. Click Start and then wait for the progress line on the status bar to return to Ready.
9. Use the  icon to show and hide the pixel grid for a clearer view in the search screen.



**Figure 70. Pixel Search Screen**

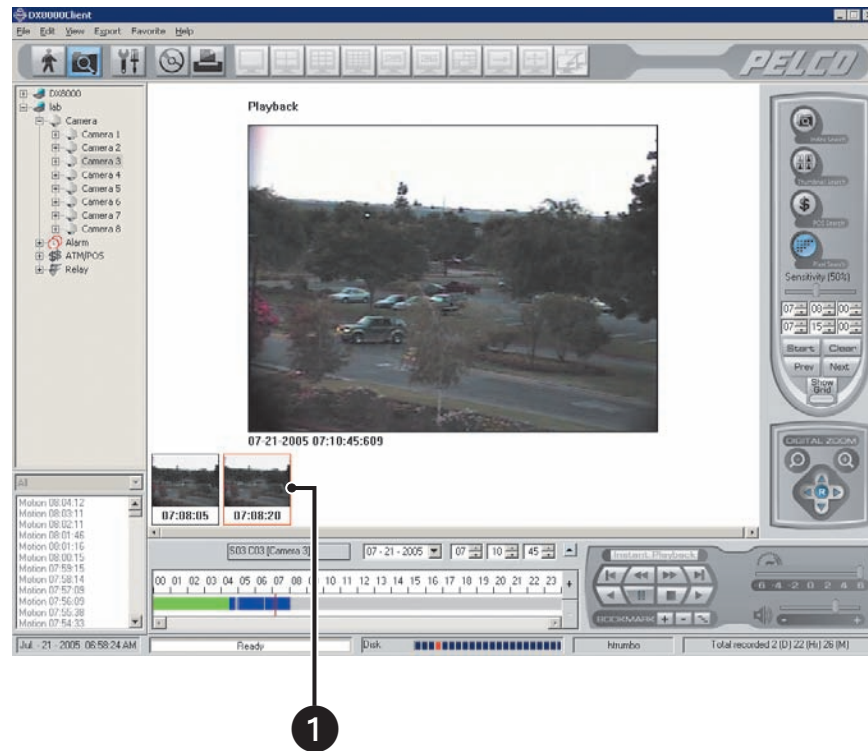
## VIEWING A VIDEO THUMBNAIL

After the search has been completed, a series of thumbnails appear on the screen below the search grid. Each thumbnail contains the first image of recorded video for the listed time period.





- Double-clicking a thumbnail will cause it to begin playing.
- Click  and  to move backwards and forwards through thumbnails.

To view a video thumbnail:

1. Click a thumbnail. The thumbnail's search parameters (date and time) are displayed below the search grid. The thumbnail's search start time is a few seconds ahead of the search start time you entered.



**Figure 71.** Thumbnail Images Marking Pixel Changes

2. To locate playback at the start of the first image, click . The video scene is played back and displayed in reverse.
3. Click  to pause the video play back when the beginning of the first recorded is reached.
4. Click . Playback starts and the video scene is displayed.
5. Click  to remove the thumbnail results.

## WORKING WITH SPECIAL VIEW AND SEARCH METHODS

The DX8000 allows you to do the following:

- View video in the deinterlaced mode.
- View live and playback video simultaneously.
- View and search backed-up video.

This section describes how to use special view and search methods and includes the following topics:


- [Viewing Video in the Deinterlaced Mode](#) on page 112
- [Viewing Live and Playback Video Simultaneously](#) on page 112
- [Viewing and Searching Backed-Up Video](#) on page 192

### VIEWING VIDEO IN THE DEINTERLACED MODE

Images recorded at 4CIF at a low frame rate per second might move or tear. In this case, you can use the View menu's Deinterlaced Image option to enhance the displayed image. In the deinterlaced mode, the DX8000 converts the recorded image and displays it at 2CIF resolution. The process removes one of the 4CIF interlaced fields (even or odd) from the 4CIF recorded image to arrive at 2CIF resolution for the displayed image. The original image is retained at the recorded 4CIF resolution.

For exported images, the DX8000 provides a global option for enabling a deinterlacing filter. In this case, the selected channel's image is exported at 2CIF resolution. This setting is effective for all channels and cannot be set for individual channels. For more information about enabling the denaturalizing filter, refer to [Enabling the Deinterlacing Filter](#) on page 116.



To view video using the deinterlaced option:

1. Click  to start video playback.
2. On the menu bar, click View > Display deinterlaced image.

### VIEWING LIVE AND PLAYBACK VIDEO SIMULTANEOUSLY

The DX8000 allows simultaneous viewing of live and playback video from a single camera source.

To view live and playback video from the same camera:

1. On the DX8000 toolbar, click .
2. Drag a camera from the Site tree to a view panel.
3. Click  to begin playback.
4. Drag the *same camera* from the Site tree onto a different view panel while video is playing.

# Exporting Video

Power Users and Administrators can export sections of prerecorded video to a local hard disk drive or other device attached to a client PC. The following instructions demonstrate how to export video.

- You must put the recorder in Playback or Search mode to export video. You cannot access Export in Live mode.
- To export video or still images to a CD-R/RW or DVD-R/RW, you must have Nero Express CD burning software version 6.3.1.25 installed on your client PC. If you do not have this version of Nero Express, you can download an update or demo version at <http://www.nero.com>.

This section describes how to export video and includes the following topics:

- [Exporting Bookmarked Video Regions](#) on page 113
- [Inserting and Removing a USB Flash Drive](#) on page 115
- [Enabling the Deinterlacing Filter](#) on page 116
- [Mapping and Disconnecting a Network Drive](#) on page 116
- [Performing the Export](#) on page 117
- [Stopping an Export While in Process](#) on page 122

## EXPORTING BOOKMARKED VIDEO REGIONS

You can bookmark multiple regions of video along the timeline for export. Bookmarked regions are designated with start point and end point bookmarks. Multiple regions can be bookmarked along a single 24-hour timeline, but only a single channel can be exported at a time. Bookmarked regions are listed in the Export Video dialog box at the time of export.




The following figure shows the DX8000 bookmark controls.



**Figure 72.** Bookmark Controls





The following table describes the bookmark controls.

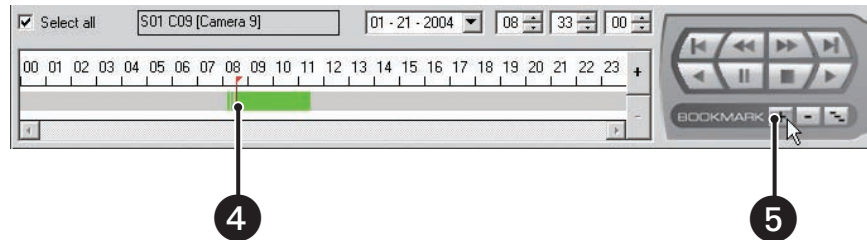
**Table X.** Bookmark Controls

Button	Command	Description
	Add Bookmark	Does the following: <ul style="list-style-type: none"><li>• Adds a red bookmark flag to mark the beginning of a start point.</li><li>• Adds a gray bar to indicate the range between the start point and end point.</li></ul>
	Remove Bookmark	Removes the selected bookmark.
	Remove All Bookmarks	Removes all bookmarks.




## CREATING BOOKMARKS

To select a region to export:

1. Make sure the DVR is in Playback or Search mode by clicking  or .
2. Click  if you are in Live mode, or proceed to step 3 if you are in Search mode.
3. Select a camera from the Site tree.
4. Locate the timeline slider at the *beginning* of the range you want to bookmark.  
You can use the drop-down box and spinner buttons above the timeline to locate a bookmark.
5. Click . A red bookmark flag appears on the timeline.



**Figure 73. Setting a Starting Bookmark**

6. Locate the timeline slider at the *end* of the range you want to bookmark.
7. Click . The bookmark flag and the region between bookmarks turn gray.  
Exporting a bookmarked region of video requires start and end bookmarks. If only one bookmark is set, video will not be marked for export.
8. Repeat steps 4 through 7 for each additional region you want to bookmark for that camera.
9. Click  if you are in Live mode, or proceed to step 8 if you are in Search mode.
10. Click  and follow the directions in [Performing the Export](#) on page 117.


## CLEARING BOOKMARKS

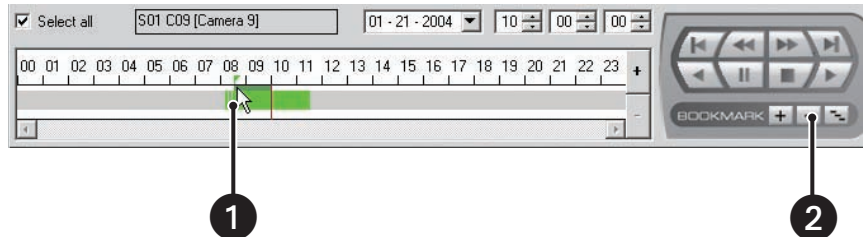
This section describes how to clear bookmarks and includes the following topics:

- [Clearing a Single Bookmark](#) on page 114
- [Clearing All Bookmarks](#) on page 115

### Clearing a Single Bookmark

To clear a single bookmark:

1. Select a bookmark flag from the timeline. The bookmark flag should change to a light green color.
2. Click  to remove the selected bookmark.



**Figure 74. Removing a Single Bookmark**

## Clearing All Bookmarks

To clear all bookmarks:

➔ Click [Remove All Bookmarks](#).

## INSERTING AND REMOVING A USB FLASH DRIVE

The DX8000 supports both USB 1.1 and USB 2.0 flash drives. To ensure data is not lost or corrupted when exporting data to a USB flash drive, follow the steps listed in [Removing a USB Flash Drive](#) on page 115.

This section describes how to insert and remove a USB device and includes the following topics:

- [Installing a USB Flash Drive](#) on page 115
- [Removing a USB Flash Drive](#) on page 115

### INSTALLING A USB FLASH DRIVE

This section describes how to install a USB flash drive. To install a USB flash drive into the PC:

1. Insert the USB drive into the PC's USB 2.0 port.
2. Wait five seconds while the PC recognizes and automatically installs the device.

### REMOVING A USB FLASH DRIVE

You can remove a USB device within the DX8000 environment. In this case, you do not have to exit to the Windows environment.

 **WARNING:** Improperly removing a USB drive can cause data to be lost or corrupted.





To remove the USB flash drive from the PC, follow the Windows instructions applicable for your machine. For example, for Windows XP:

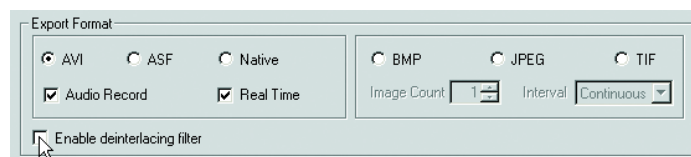
1. Click the Safely Remove Hardware icon in the task bar. The system display a message to safely remove the USB device.
2. Click the Safely remove USB Mass Storage Device - Drive(G:) box. The system displays a confirmation message.
3. Remove the USB flash drive.

## ENABLING THE DEINTERLACING FILTER

Images recorded at 4CIF at a low frame rate per second might move or tear. The DX8000 provides a global option for enabling deinterlacing filtering to enhance the exported image for 4CIF recorded channels. In this case, the exported image is converted to 2CIF resolution. This setting is effective for all channels, and cannot be set for enabling individual channels. For more information about the viewing video in the deinterlaced mode, refer to [Viewing Video in the Deinterlaced Mode](#) on page 112.

To enable the deinterlacing filter:

1. Make sure the DVR is in Playback or Search mode by clicking  or .
2. Click  if you are in Live mode, or proceed to step 3 if you are in Search mode.
3. Click . The Export Video dialog box opens.
4. From the Export Format area, select the "Enable deinterlacing filter" check box.



**Figure 75.** Enabling the Deinterlacing Filter from the Export Video Dialog Box

## MAPPING AND DISCONNECTING A NETWORK DRIVE





You can export sections of prerecorded video to a network drive. The DX8000 allows you to map to or disconnect from a network drive. In this case, you must use the IP address of the target drive. The DX8000 allows you to use the host name of the target device. To do so, you must enable NetBIOS option in the Windows environment. You need to know what letters are already assigned to drives and the path to the folder you want to map.

This section describes how to map to and disconnect a network drive and includes the following topics:

- [Mapping a Network Drive](#) on page 116
- [Disconnecting a Network Drive](#) on page 117

### MAPPING A NETWORK DRIVE

To map a network drive:

1. Make sure the DVR is in Playback or Search mode by clicking  or .
2. Click  if you are in Live mode, or proceed to step 3 if you are in Search mode. Click . The Export Video dialog box opens.
3. Click Map NetDrv. The Map Network Drive dialog box opens asking for a drive letter and path.
4. In the Drive drop-down box, select a drive letter that is not being used.
5. Type the path in the Folder drop-down box; **\\IP\_address\_of\_server\folder\_name** is an example.
6. (Optional) Click the “Reconnect at logon” box if you do not want the mapped drive to remain connected each time you logon.
7. Click Finish. The newly mapped drive is added as a remote drive and is displayed in the Device area. The mapped drive can now be accessed just like a local drive.

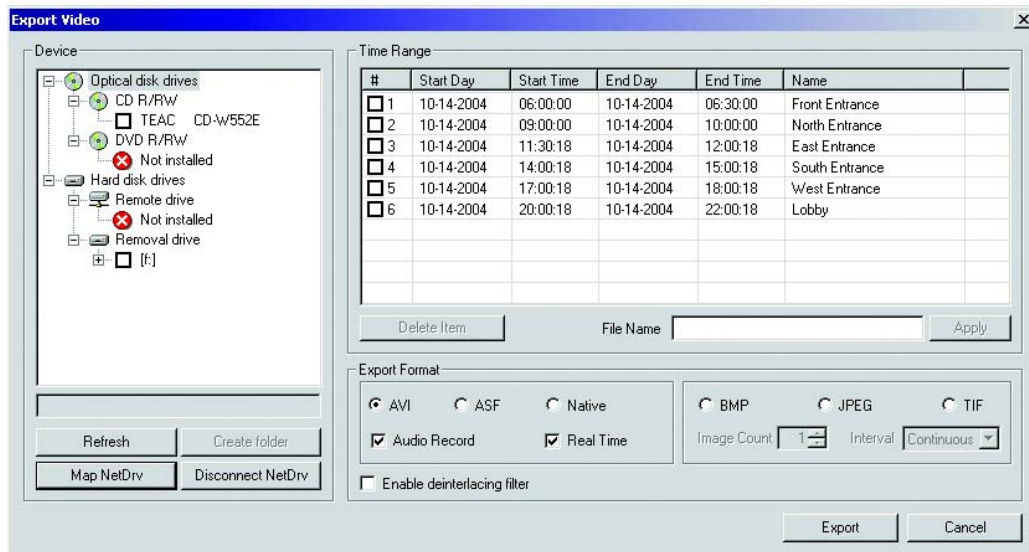




Figure 76. Export Video Dialog Box

### DISCONNECTING A NETWORK DRIVE

To disconnect a network drive:

1. On the DX8000 toolbar, click . The DX8000 is in the Search mode.
2. Click . The Export Video dialog box opens.
3. Click Disconnect NetDrv. The Disconnect Network Drive dialog box opens.
4. Select the network drive that you want to disconnect.
5. Click OK. The drive is disconnected and removed from the Export Video dialog box Device area.







## PERFORMING THE EXPORT

This section describes how to export data and includes the following topics:

- [Starting an Export Process](#) on page 117
- [Changing a Bookmarked Time Range](#) on page 119
- [Assigning a Custom Export Video File Name](#) on page 119
- [Selecting the Export Format](#) on page 120
- [Exporting a Sequence of Still Images](#) on page 121
- [Finalizing an Export Process](#) on page 121
- [Stopping an Export While in Process](#) on page 122
- [Working with DX8000 Backed-Up Video](#) on page 122

## STARTING AN EXPORT PROCESS

To start the export process:

1. Make sure the DVR is in Playback or Search mode by clicking  or .
2. Click  if you are in Live mode, or proceed to step 3 if you are in Search mode.
3. Click . The Export Video dialog box opens.
4. Click the plus (+) sign next to a drive in the Device list. Available devices are indicated by a check box to the left of the device name.
5. Select the check box of the desired device. If you choose a remote device, select the drive and folder path where you would like to store the exported file. You can also click the Browse button to access the file system for the appropriate folder.

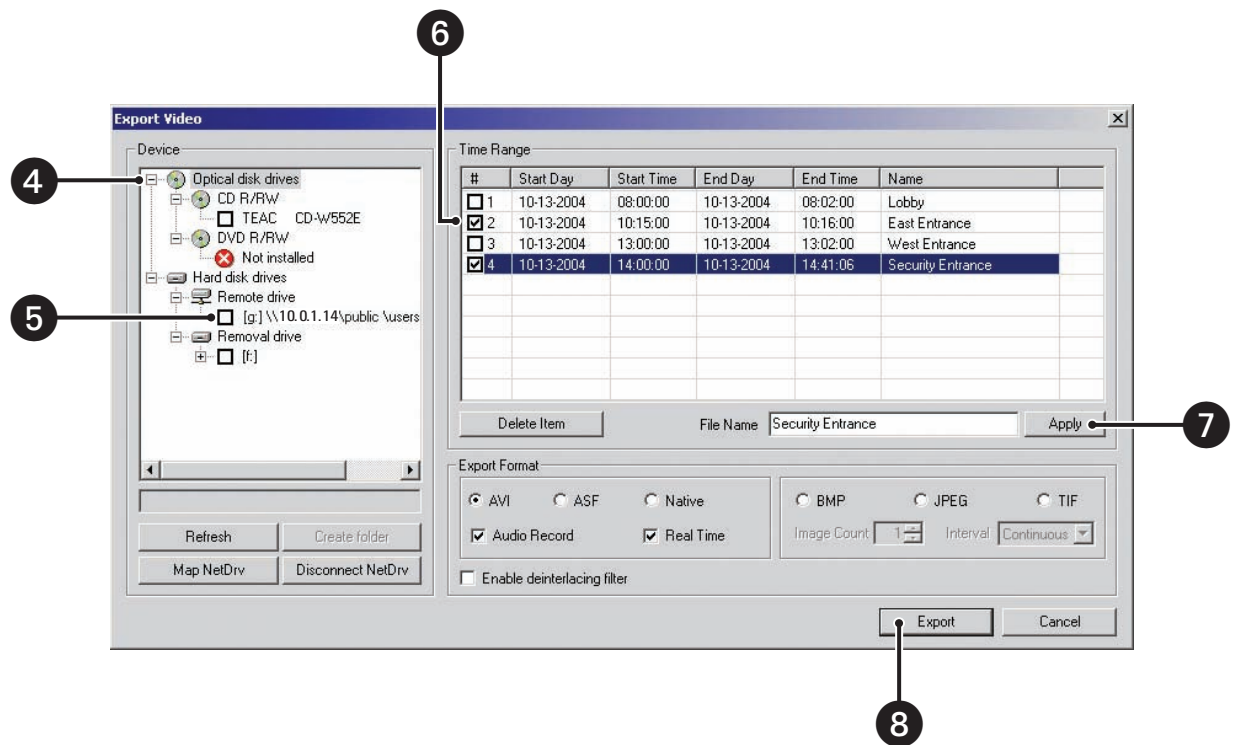
If your DX8000 is connected to a network that supports shared folders and drives, you can map a network drive from within the Export Video dialog box. For more information, refer to [Mapping and Disconnecting a Network Drive](#) on page 116.

The following table shows a listing of available devices.

**Table Y. Available Backup Space**

Type	Description
Optical drives	The DX8000 supports the following drives: <ul style="list-style-type: none"><li>• CD-R</li><li>• DVD-R</li></ul>
Hard disk drives	The hard disk drive can be any of the following: <ul style="list-style-type: none"><li>• Local drives</li><li>• Remote drives</li></ul>
Removable drives	USB flash drives

6. Select the check box of the video time range you want to export. You can export multiple time ranges simultaneously. For more information, refer to [Changing a Bookmarked Time Range](#) on page 119.
7. Click in the File Name box, and then type the file name for each selected video time range. You can accept the default file name assigned to the time range. For more information, refer to [Assigning a Custom Export Video File Name](#) on page 119.
8. Select the export format. For more information, refer to [Selecting the Export Format](#) on page 120.
9. Click Export.

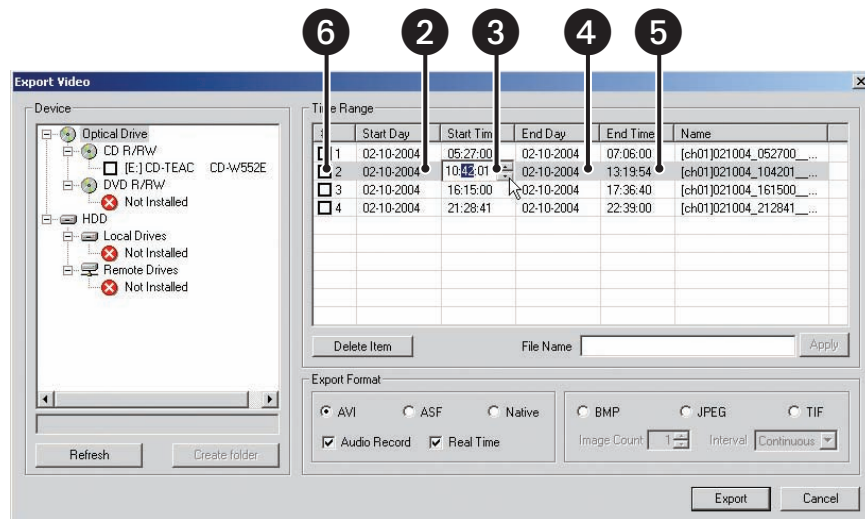


**Figure 77.** Exporting Selected Video

## CHANGING A BOOKMARKED TIME RANGE

To change a bookmarked time range or create a new time range to be exported:

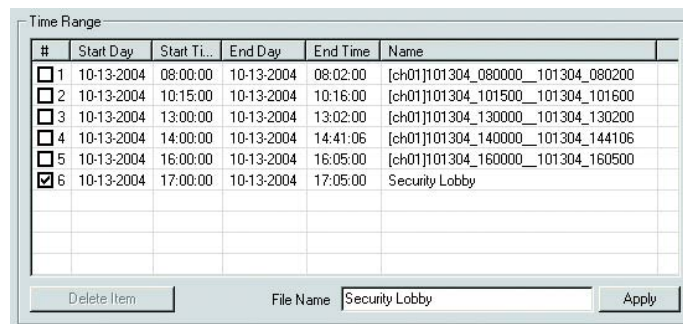
1. Select the desired row in the Time Range table.
2. Double-click the Start Day field, and then use the spinner buttons to set the start date for the export.  
The start days and times cannot be set later than end days and times.
3. Double-click the Start Time field, and then use the spinner buttons to set the start time for the export.
4. Double-click the End Day field, and then use the spinner buttons to set the end date for the export.
5. Double-click the End Time field, and then use the spinner buttons to set the end time for the export.
6. Select the check box next to each time range you would like to export.



**Figure 78.** Export Time Range

## ASSIGNING A CUSTOM EXPORT VIDEO FILE NAME

By default, the DX8000 assigns a file name to each time range. When the video channel selected is exported, the file is assigned the name appearing in the Name column.

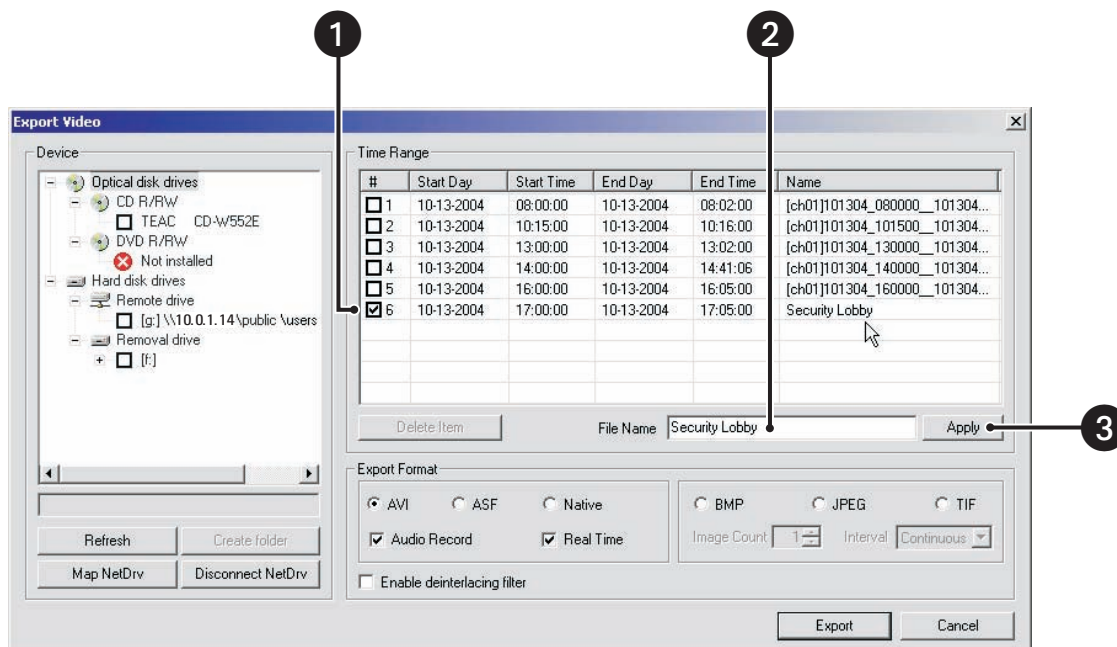


**Figure 79.** Default File Names

The default filename is constructed from the information displayed in the Start Day, Start Time, End Day, and End Time columns.

To assign a custom file name for a time range:

1. Verify that the check box of the row you want to rename is selected.
2. Enter a file name for the file you want to export. (Export file names follow standard Windows file-naming conventions.)
3. Click Apply. The Apply button updates the Name field.



**Figure 80. Renaming Export Time Ranges**

## SELECTING THE EXPORT FORMAT

The DX8000 allows you to select the export format. The following table shows the available export formats.

- **Native format:** When exporting video in the native format, the DX8000 embeds a digital watermark in the video stream for the purpose of authentication. Watermarking ensures that an image has not been edited or damaged after it has been recorded. The watermark is an encrypted, digital signature embedded in the video stream during the compression stage, protecting the video from the moment of creation. The DX8000 Viewer software is capable of reading a DX8000 watermark and verifying the originality of the video.
- **AVI or ASF format:** Video exported in AVI or ASF format can be viewed using standard viewer software such as Windows Media Player. When exporting video in the native format to a CD or DVD device, the DX8000 will automatically include the DX8000 Viewer application along with the video. This viewer is designed to play a variety of still image, video, and audio media formats, including the native DX8000 format. The DX8000 Viewer application will automatically run each time a CD or DVD created by the DX8000's export feature is inserted into a Windows-based PC. To ensure that the viewer software runs automatically after the disk has been inserted, verify that the auto-run feature of your PC's optical drive has not been disabled.

**Table Z. Export Formats**

Format	Description
AVI	Saves video sequence as a standard Windows video format.
ASF	Saves video sequence as a standard Windows media file.
Native	Saves video sequence using DX8000's proprietary compression format. Native format provides increased compression and smaller file sizes.
BMP	Saves a still image file in standard Windows bitmap format. Only the first frame of the video sequence is saved.
JPEG	Saves a still image file in JPEG format. Only the first frame of the video sequence is saved.
TIFF	Saves a still image file in TIF format. Only the first frame of the video sequence is saved

To select the export format:

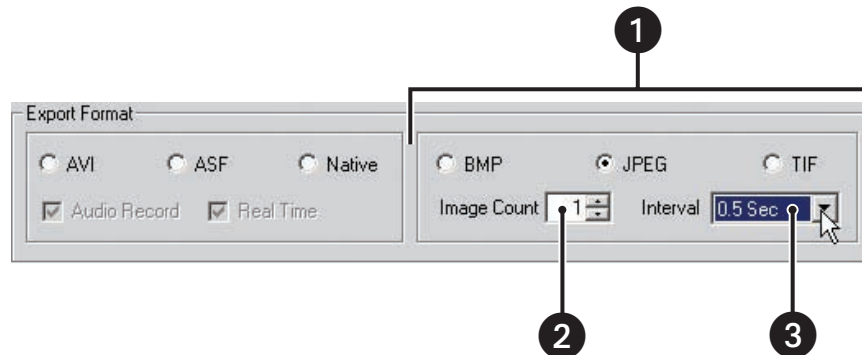
- ➔ From the Export Video dialog box, select the radio button of the file format you want to export.

## EXPORTING A SEQUENCE OF STILL IMAGES

Still image formats export the first frame of a bookmarked region and then a single frame for each time interval until the number of images specified has been exported. For example, consider exporting a six-hour bookmarked region of video with an image count of 100 and a time interval of 3 seconds. The resulting export will include the first frame of the bookmarked region followed by 99 additional images taken at 3-second intervals. The first exported image will be the first frame of the bookmarked region and the last image will be the frame taken at 300 seconds into the bookmarked region.

To export a sequence of still images:

1. Select a still image format. Options are BMP, JPEG, and TIF.
2. Select the number of images (1 to 999) you want to save in the sequence.
3. Select the time interval between each saved image in the sequence. Options are as follows:
  - Continuous
  - 0.5 seconds
  - 1 second
  - 2 second
  - 3 second
  - 4 seconds
  - 5 seconds



**Figure 81.** Still Image Export Formats

## FINALIZING AN EXPORT PROCESS

This section describes how to finalize an export process. The following guidelines are applicable:

- Audio export is available only with DX8000 native, AVI, and ASF video formats.
- Real Time setting applies only to DX8000 native, AVI, and ASF video formats.
- When the Real Time check box is selected, the DX8000 will export video so it can be played back in real time (30 fps) for the same length of time as the original recording. For example, if video was recorded at 1 fps, this means the DX8000 will insert 29 null frames for every 1 frame of actual video. Thus, one minute of video recorded at 1 fps (60 frames total) will play back for one minute at 30 frames per second (60 frames of actual video interspersed with 1,740 null frames). If the Real Time check box is not selected, one minute of video recorded at 1 fps will play back in two seconds in real time. [Figure 91](#) illustrates the two video streams: 1) one padded with null frames to match the actual time duration and 2) another stream without null frames.



**Figure 82.** Real Time Versus Non-Real Time Export

To finalize the export process:

1. Make sure that the export media selected is inserted in the drive unit and that the drive is ready.
2. In the Time Range table, click selection box for each backed-up video time range you want to export.
3. In the Export Format section, do the following:
  - a. Click the Audio Record check box to include recorded audio.
  - b. Click the Real Time check box to export video using standard clock time.
4. Click Export to export video data.

## STOPPING AN EXPORT WHILE IN PROCESS

Once an export operation has begun, a user can easily stop it by interrupting or canceling the operation from the Export menu on the main or search screens. Interrupting an export simply stops the progress of the export while keeping all video information stored up to that point intact. Canceling an export will delete any video data exported during the operation as well as ending the export itself.

This section describes how to stop an export process and includes the following topics:

- [Retaining Video When Stopping an Export Process](#) on page 122
- [Deleting Video Data When Stopping an Export Process](#) on page 122

### Retaining Video When Stopping an Export Process

To halt an export that is in process while retaining video data stored to that point:

- ➔ From the DX8000 menu bar, choose Export > Interrupt Export.

### Deleting Video Data When Stopping an Export Process

To halt an export that is in process and delete any video data stored to that point:

- ➔ From the DX8000 menu bar, choose Export > Cancel Export.

## WORKING WITH DX8000 BACKED-UP VIDEO

The DX8000 allows you to view and search backed-up video. Use the DX8000 server to back up video. You must use the DX8000 Client application to view backed-up video.

For more information about viewing backed-up video, refer to [Viewing and Searching Backed-Up Video](#) on page 192.






## Printing Images

---

The printing feature of the DX8000 produces a hard copy of the current on-screen image. A Windows-compatible printer must be installed to take advantage of the DX8000's print feature. For information on installing a printer, refer to the installation manual that came with your unit.

The DVR must be placed in Playback or Search mode to use the print feature. Playback is paused once the print button is pressed.






To print an image displayed in a pane:

1. Click  or .
2. Locate the video image you want to print. For more information on locating video, refer to [Working in Playback Mode](#) on page 79 and [Working in Search Mode](#) on page 88.
3. Click .
4. Click  to freeze the image for printing.
5. Click .
6. Click OK.

## PRINTING IMAGES IN THE DEINTERLACED MODE

If you are printing images recorded at 4CIF at a low frame rate per second, the viewed image might move or tear. The View menu's Deinterlaced Image option is used to enhance the image for printing.

To print an image using the deinterlaced option:

1. Click  or .
2. Locate the video image you want to print. Refer to [Working in Playback Mode](#) on page 79 and [Working in Search Mode](#) on page 88 for information on locating video.
3. Click .
4. Click  to freeze the image for printing.
5. Click  to print the image to a designated printer.

# Setting Up the DX8000

---

Only a single user with Administrator or Power User access is allowed to access a DX8000's Setup mode box at one time. When connected to a network supporting multiple DVRs and/or clients, users with Administrator access override and block Power Users. If two users with the same access level attempt to enter Setup mode simultaneously, the DX8000 will allow access to setup features on a first-come, first-served basis. Unavailable setup options will be grayed-out.

This section describes the Setup Mode and includes the following topics:

- [Accessing the Setup Mode](#) on page 124
- [Understanding the Setup Dialog Box](#) on page 125
- [Camera Setup](#) on page 127
- [Link Setup](#) on page 133
- [Schedule Setup](#) on page 144
- [Setting Up Network Properties](#) on page 165
- [Data Backup Setup](#) on page 186
- [User Setup](#) on page 194
- [Site Setup](#) on page 200
- [System Setup](#) on page 205
- [External Monitor Setup](#) on page 215
- [Emergency Notification Setup](#) on page 222
- [Emergency E-Mail Notification Setup](#) on page 225

## ACCESSING THE SETUP MODE

The Setup Mode is accessed from the DX8000 toolbar by clicking the [Setup](#) icon. When clicked, the Setup icon opens the Setup dialog box in the DX8000 view panel. The major configuration categories are displayed on individual tabbed pages. Each configuration page contains all of the options and parameters for the respective function, that allow you to customize how the DX8000 operates for your particular application. Access a setup page by clicking its icon that is displayed on the right side of the view panel.

The Setup dialog box allows Administrators and Power Users access to the DX8000's setup functions. However, only Administrators can define user names and passwords for new users.

To access the Setup Mode:

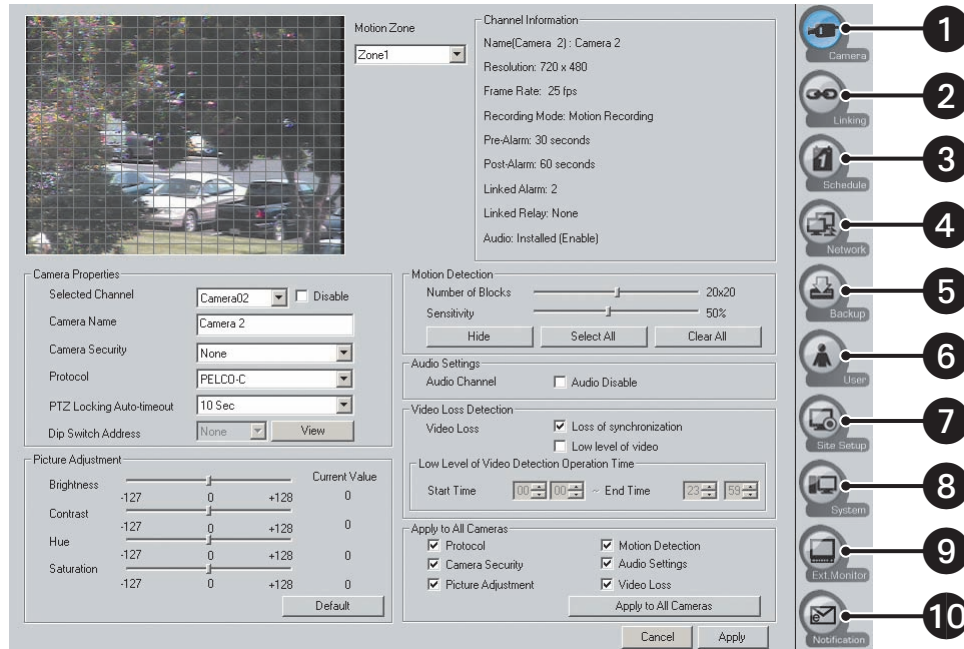
- ➔ On the DX8000 toolbar, click Setup.  
The Setup dialog box opens to the default Camera page.



## UNDERSTANDING THE SETUP DIALOG BOX

The Setup dialog box opens in the DX8000 view panel to the default Camera page. Excluding the video visible through the Camera page Motion Zone window, you do not see video from any of the other setup pages. You must exit the Setup dialog box to access the DX8000 functions in the main window.











The following figure shows the parts of the Setup dialog box.



**Figure 83.** Parts of the DX8000 Setup Dialog Box

The following table describes the parts of the Setup dialog box.

**Table AA. Parts of the DX8000 Setup Dialog Box**

Item	Button	Part	Description
1		Camera	Click the Camera icon to configure cameras. Available options are PTZ functions, motion detection, picture adjustment, audio, and video loss detection settings.
2		Linking	Click the Linking icon to configure relays and alarms, associate relays and alarms with cameras, link relays to alarms, and link cameras to other cameras.
3		Schedule	Click the Schedule icon to build custom recording schedules, set image resolution, frame rate, and image quality, and configure relay settings.
4		Network	Click the Network icon to set up the network configuration and communication port settings.
5		Backup	Click the Backup icon to configure and perform backups.
6		User	Click the User icon to add, delete, or change user accounts.
7		Site	Click the Site Setup icon to add, delete, and configure additional DX8000 Series DVRs.
8		System	Click the System icon to set up additional system options.
9		Ext. Monitor	Click the Ext. Monitor icon to configure an additional display monitor. (This icon appears only if the optional display card has been installed.)
10		Notification	Click the Notification icon to configure emergency agent and e-mail notification options.

## CAMERA SETUP



Depending on your system's current configuration, up to 16 video cameras can be connected to a single DX8000. The following section illustrates basic camera configuration. You must be logged in as an Administrator or Power User to configure cameras.

This section describes how to setup the camera and includes the following topics:

- [Basic Camera Setup](#) on page 127
- [Motion Detection Setup](#) on page 129
- [Audio Setup](#) on page 130
- [Applying Settings to all Cameras](#) on page 133

### BASIC CAMERA SETUP

To set up camera picture and pan, tilt, and zoom (PTZ) options:

1. Do one of the following:
  - On the DX8000 toolbar, click . The Setup dialog opens to the Camera page.
  - If the Setup dialog box is already open, click . The Camera page is displayed.
2. In the Camera Properties section, do the following:
  - a. Select a camera from the drop-down box. (You can also select a camera from the Site tree by clicking on it.)
  - b. Select the Disable check box if you want to disable the camera.
  - c. Enter an optional new name for the camera. Camera names can be up to 32 characters long and can include spaces and special characters.
  - d. Set camera security level. Available security levels are as follows:
    - **None:** Camera can be viewed by all users.
    - **Low:** Camera can be viewed by all users except the Guest account.
    - **Medium:** Camera can be viewed by users with Standard User access and higher.
    - **High:** Camera can be viewed by users with Power User access and higher.
  - e. In the Protocol drop-down box, select the appropriate PTZ protocol for the camera, or select No PTZ if the selected camera does not support PTZ functions. Some of the supported protocol options are as follows:
    - NO PTZ: Disables all PTZ functions for the current camera
    - PELCO-C: Coaxitron
    - PELCO-D: Pelco proprietary
    - PELCO-P: Pelco proprietary
    - SAMSUNG (V2.0)
    - PANASONIC
    - VICON
    - KALATEL

You must configure one of the RS-422/RS-485 PTZ ports for Spectra for Coaxitron to function. For more information, refer to the DX8000 server Operations and Programming manual.

- f. In the PTZ Locking Auto-timeout drop-down box, select an appropriate timeout value. Time out values can be set between 5 and 60 seconds. The default value is 10 seconds.

Because the DX8000 Series DVR is designed to operate in a networked environment, it is possible that multiple users may attempt to simultaneously control the PTZ features of a single camera. To minimize potential conflicts, only one user at a time is allowed to control the PTZ features of a camera. PTZ control is made available on a first-come, first-served basis. Once a user gains control of a camera's PTZ features, all other users are locked out and must wait until the controls for that device have been left idle for the amount of time configured for that camera as specified in the PTZ Locking Auto-timeout drop-down box.

g. Set the selected camera address as follows:

- (1) In the Dip Switch Address drop-down box, select an address from the available addresses. If the selected camera's protocol is set to NO PTZ or PELCO-C, then the DIP Switch Address drop-down box is unavailable. In this case, the camera's dip switch setting cannot be set using software.

This option is available for cameras and protocols that support software-configurable addresses. Only one address can be assigned to any one camera. The DX8000 displays an error message if you attempt to assign the same address to different cameras.

- (2) To view the camera DIP switch address setting for all attached local cameras, click View. The DIP Switch Address View dialog box opens. The assigned DIP switch setting for all attached cameras is displayed.

3. In the Picture Adjustment section, adjust picture properties by moving sliders for Brightness, Contrast, Hue, and Saturation.

As you adjust the picture properties of a camera on the local DVR, changes will be reflected immediately in the view area near the top of the screen. Changes made to cameras at a remote site will not appear in the view area until you click Apply.

4. Click Default to return all picture property settings to the normal state.

You can click the Hide/Show button to clear the view area to get a better look at your picture property changes. Refer to step 2 in [Motion Detection Setup](#) on page 129.

5. Click Apply.




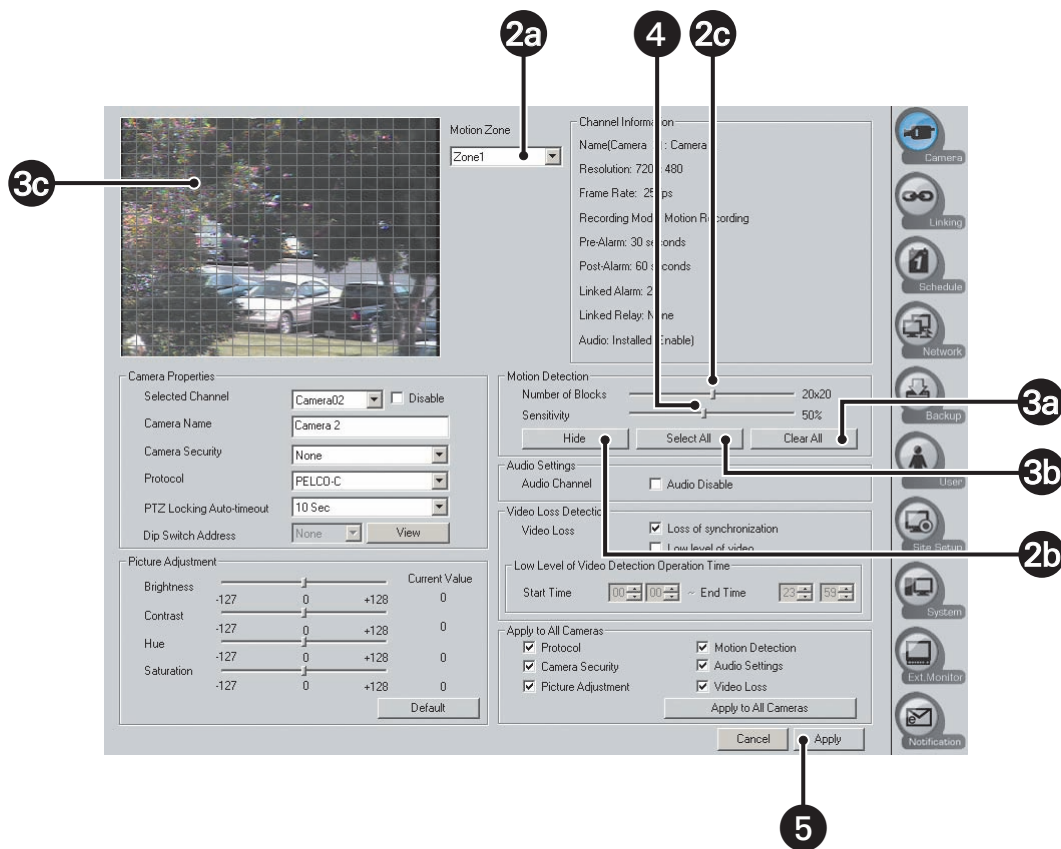
Figure 84. Camera Page

## MOTION DETECTION SETUP

Up to five motion detection profiles can be defined for each camera. When the DX8000 is scheduled to record motion detection, motion sensed in the selected zone will result in video data being recorded for that channel. Motion detection can also be used to trigger relays, PTZ presets, and recording on multiple cameras. Refer to [Schedule Setup](#) on page 144 and [Link Setup](#) on page 133 for more information.

To define motion detection profiles for the selected camera:

1. On the DX8000 toolbar, click . The Setup dialog opens to the Camera page.
2. To set up the motion grid, do the following:
  - a. Select the motion zone (1-5) from the drop-down box.
  - b. Click the Hide/Show button to either hide or display the motion grid.
  - c. Move the Number of Blocks slider to change the grid size of the motion overlay.
3. Define the area for motion detection as follows:
  - a. Click Clear All to remove the currently defined motion detection area.
  - b. Click Select All to enable motion detection for the entire viewable area.
  - c. Hold down the *left* mouse button and drag to *select* areas.
  - d. Hold down the *right* mouse button and drag to *deselect* areas.
4. In the Motion Detection section, move the Sensitivity slider to adjust motion sensitivity. Moving the slider to the left decreases motion sensitivity; moving the slider to the right increases sensitivity.
5. Click Apply.



**Figure 85. Camera Motion Detection Setup**

## AUDIO SETUP

The DX8000 audio feature allows you to configure individual camera channels to listen to and record live audio. You can monitor live audio at a local server or listen to live audio from a remote DX8000 server or client system. You can play back audio recorded by a camera channel.

To use the DX8000's audio features, the optional DX8000-AUD audio card must be installed. You can determine if the audio card is installed by checking the Audio option status in the Channel Information section of the Camera page. The Audio status is one of the following:

- Not installed
- Installed (enabled)

The DX8000 compresses audio data to save space. In this case, recorded audio may not be of the same quality as live audio. Consult your Pelco sales representative for more information regarding the DX8000-AUD option.

To set up audio for a camera:

1. Do the following:
  - a. Install the optional DX8000-AUD audio card if necessary. For information about installing the optional DX8000-AUD audio card, refer to the DX8000 Installation manual.
  - b. Connect an audio input device (microphone) to the numbered DX8000-AUD audio card input for the camera channel being configured for live audio recording.
  - c. To hear live audio at the local server, connect head phones to the DX8000 audio output connector.
2. On the DX8000 toolbar, click [Setup](#). The Setup dialog box opens to the Camera page.
3. Check the Channel Information section to verify that the audio option is installed and available.
4. In the Camera Properties section, select the camera channel you want to configure for live audio recording.
5. In the Audio Settings section, verify that the Audio Disable check box is not selected.
6. Click Apply.
7. Verify that you can hear sound from the DX8000 audio output.

## LISTENING TO LIVE AUDIO


The DX8000 audio feature allows you to listen to live audio at a local server or listen to live audio from a remote DX8000 server or client system. For information about setting up the DX8000 server to record and listen to live audio, refer to [Audio Setup](#) on page 130.

This section describes how to listen to live audio and includes the following topics:

- [Listening to Live Audio at a Local Server](#) on page 131
- [Listening to Live Audio from a Remote DX8000 System](#) on page 131


### Listening to Live Audio at a Local Server

To listen to live audio at the local server:

1. Connect head phones to the DX8000 audio output connector. For information about setting up the DX8000 server to record and listen to live audio, refer to [Audio Setup](#) on page 130
2. On the DX8000 toolbar, click [Setup](#). The Setup dialog box opens to the Camera page.
3. Check the Channel Information section to verify that the audio option is installed and available.
4. In the Camera Properties section, select the camera channel that is configured for live audio recording.
5. In the Audio Settings section, verify that the Audio Disable check box is not selected.
6. Click Apply.
7. Verify that you can hear sound from the DX8000 audio output.
8. On the DX8000 toolbar, click  .
9. Drag a camera configured to record live audio from the Site tree onto a view pane.
10. Verify that you can hear live audio.

### Listening to Live Audio from a Remote DX8000 System

To listen to live audio at a remote DX8000 server or client system:

1. On the DX8000 toolbar, click [Setup](#). The Setup dialog box opens to the Camera page.
2. Check the Channel Information section to verify that the audio option is installed and available. For information about setting up the DX8000 server to record and listen to live audio, refer to [Audio Setup](#) on page 130
3. In the Camera Properties section, select the camera channel that is configured for live audio recording.
4. In the Audio Settings section, verify that the Audio Disable check box is not selected.
5. Click Apply.
6. Verify that you can hear live audio.
7. On the DX8000 toolbar, click  .
8. Drag a camera configured to record live audio from the Site tree onto a view pane.
9. Verify that you can hear live audio.

## CONFIGURING VIDEO LOSS DETECTION

You can configure the DX8000 to monitor each camera for the following events:


- **Loss of synchronization:** This event occurs if the data cable between the camera and DX8000 is disconnected (cable is cut or unplugged) or the camera loses power.
- **Low level of video:** This event occurs if the DX8000 detects a low level of video signal from the camera:
  - The available light source for the camera (indoor/outdoor light) is greatly diminished.
  - The DX8000 data cable is disconnected.

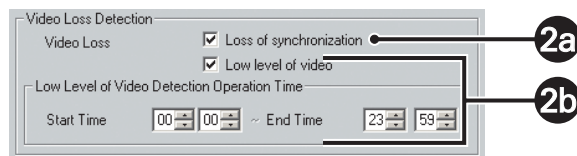
You can adjust the operation time from 0:00 to 23:59. For example, if the start time is 6:00 and the end time is 18:00, a low video level event from 18:01 to 5:59 will not be detected. The low video level detection time option is only available when the low level of video option is selected.

The DX8000 allows you to select the loss of synchronization and low level of video option independently.

- The PTZ camera and multiple relay output can be mapped to a video loss event.
- Multiple cameras can be configured to record in response to a video loss event.
- The DX8000 can be configured to use emergency agent notification. In this case, the last available video image when the event occurred is sent to the designated remote client. If no image exist, then the system attaches a red colored pane to the e-mail. The red pane contains the text "Video Loss." For information about setting up emergency notification, refer to [Emergency Notification Setup](#) on page 222.
- The DX8000 can be configured to send an e-mail notification in response to a video loss event. In this case, the last available video image when the event occurred is attached to the e-mail. If no image exist, then the system attaches a red colored pane to the e-mail. The red pane contains the text "Video Loss." For information about setting up emergency notification, refer to [Emergency E-Mail Notification Setup](#) on page 225.
- The record icon turns purple indicating a video loss recording, regardless of which schedule is setup. The video loss utility is constantly running in the background. If a schedule is not available, then it the record icon defaults to purple. If the DX8000 loses feed, video on that channel is recorded.

To set up video loss detection:

1. On the DX8000 toolbar, click . The Setup dialog opens to the Camera page.
2. In the Video Loss Detection section, do one or both of the following:
  - Click the "Loss of synchronization" check box to select loss of synchronization option.
  - Click the "Low level of video" check box to select low level of video option and do the following:
    - (1) In the Low Level of Video Detection Operation Time section, set the start time.
    - (2) In the Low Level of Video Detection Operation Time section, set the end time.
3. Click Apply.




**Figure 86. Video Loss Detection**



## APPLYING SETTINGS TO ALL CAMERAS

If you want to keep the changes you made to options and parameters on the Camera page, you must click Apply. If you attempt to leave the Camera page, the system will display a message box, prompting you to apply, not apply, or cancel the changes.

To apply camera configuration options to all attached cameras:

1. On the DX8000 toolbar, click . The Setup dialog opens to the Camera page.
2. Perform the camera configuration.
3. In the Apply to All Cameras section, select the check boxes for Protocol, Camera Security, Picture Adjustment, Motion Detection, Audio Settings, and Video Loss that you want to apply to all cameras.
4. Click Apply to All Cameras.
5. Click Apply.

## LINK SETUP

This section describes how to use the Link page to set up the following:

- Relay and alarm settings
- Event-relay link settings
- Event-recording link settings
- Event-PTZ link settings

This section includes the following topics:

- [Configuring Basic Relay and Alarm Settings](#) on page 133
- [Linking Relay Outputs to External Events](#) on page 135
- [Linking PTZ Presets and Patterns to External Events](#) on page 140
- [Linking Cameras to Record in Response to External Events](#) on page 137

## CONFIGURING BASIC RELAY AND ALARM SETTINGS

The DX8000 can support up to 16 alarm inputs and relay outputs. Eight-channel DVRs include 8 alarm and 8 relay terminals while sixteen-channel DVRs include 16 of each.

This section describes how to configure basic relay and alarm settings, and includes the following topics:

- [Understanding How Relays and Alarms React to a Power Outage](#) on page 133
- [Configuring DX8000 Basic Relay and Alarm Settings](#) on page 133
- [Configuring Basic Relay Operating Properties](#) on page 134
- [Configuring Basic Alarm Input Operating Properties](#) on page 134

### Understanding How Relays and Alarms React to a Power Outage



The DX8000 server might experience an external AC power outage and impact how the DX8000 relay and alarm features function.

- **Power outage:** Relays configured as NO are closed if the DX8000 server is shut down by a power outage or if the AC cord is unplugged.
- **Power button:** Relays configured as NO are closed if the DX8000 power button is pressed and held down.

In the scenarios above, a relay will remain closed as long as the DX8000 is powered down. In this case, alarms or sirens connected to the relays might produce a false alert.



### Configuring DX8000 Basic Relay and Alarm Settings

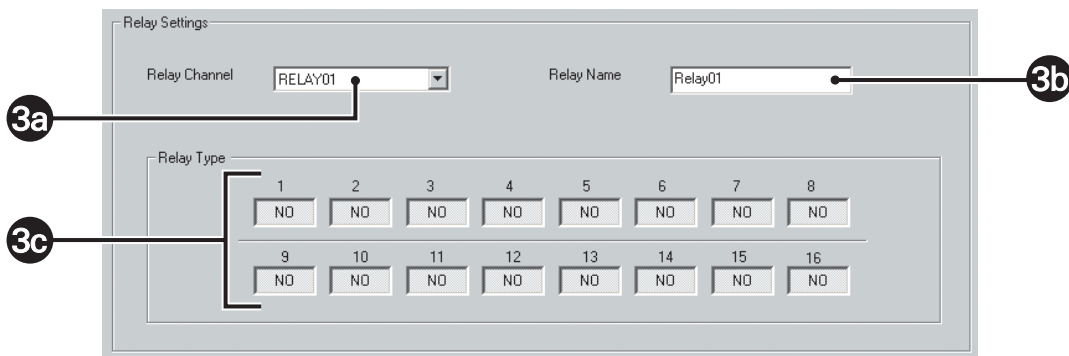
To access the Link page to program alarms and relays:

1. On the DX8000 toolbar, click . The Setup dialog opens to the Camera setup page.
2. Click . The Link page is displayed.

## Configuring Basic Relay Operating Properties

To configure basic relay operating properties:

1. On the DX8000 toolbar, click . The Setup dialog opens to the Camera page.
2. Click  to display the Link page.
3. In the Relay Settings section, do the following:
  - a. In the Relay Channel drop-down box, select the relay you want to configure.
  - b. In the Relay Name text box, enter an optional new name for the relay. Relay names can be up to 32 characters long and can include spaces and special characters.  
You can also rename sites, cameras, alarms, and relays from the Site tree by clicking twice slowly on each object's name.
  - c. In the Relay Type section, click the NO/NC button to toggle the default output type for each relay (NO – normally open or NC – normally closed).
4. Click Apply.





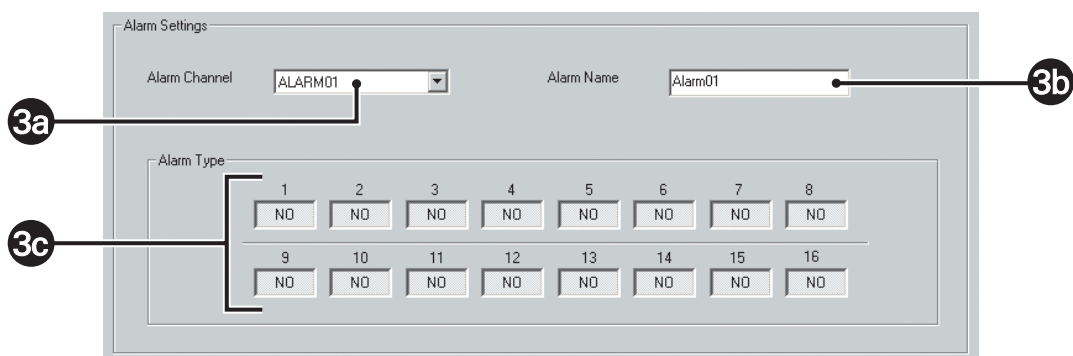
**Figure 87.** Relay and Alarm Settings Page: Relay Settings Section

## Configuring Basic Alarm Input Operating Properties

Most applications will not require you to change relay and alarm settings from their default states.

To configure basic alarm input operating properties:

1. On the DX8000 toolbar, click . The Setup dialog opens to the Camera page.
2. Click  to display the Link page.
3. In the Alarm Settings section, do the following:
  - a. In the Alarm Channel drop-down box, select the Alarm you want to configure.
  - b. In the Alarm Name text box, enter an optional new name for alarm. Alarm names can be up to 32 characters long and can include spaces and special characters.  
You can also rename sites, cameras, alarms, and relays from the Site tree by clicking twice slowly on each object's name.
  - c. In the Alarm Type section, click the NO/NC button to toggle the default output type for each alarm (NO – normally open or NC – normally closed).
4. Click Apply.





**Figure 88.** Relay and Alarm Settings Page: Alarm Settings Section

## LINKING RELAY OUTPUTS TO EXTERNAL EVENTS

This section describes how to link relay outputs to external events, such as motion, alarm, ATM/POS, and video loss events. This section includes the following topics:



- [Linking Relay Outputs to Motion Events](#) on page 135
- [Linking Relay Outputs to Alarm Events](#) on page 136
- [Linking Relay Outputs to ATM/POS Events](#) on page 136
- [Linking Relay Outputs to Video Loss Events](#) on page 137

To access the Event-Relay Link Settings page:

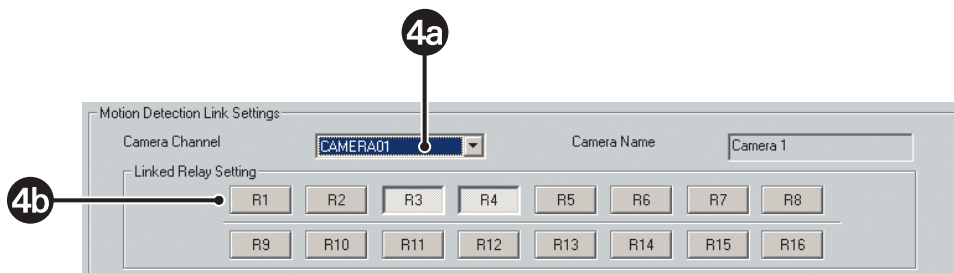
1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Linking page opens to the Relay and Alarm Settings page.
3. Click the Event-Relay Link Settings tab.

### Linking Relay Outputs to Motion Events

To set relay outputs to activate in response to motion detection events:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click .
3. Click the Event-Relay Link Settings tab.
4. In the Motion Detection Link Settings section, do the following:
  - a. Select a camera channel from the Camera Channel drop-down box.
  - b. Click the button of each relay you want to link to the selected camera.



You can also drag relays onto cameras in the Site tree while in Live mode (main screen).
5. Click Apply.



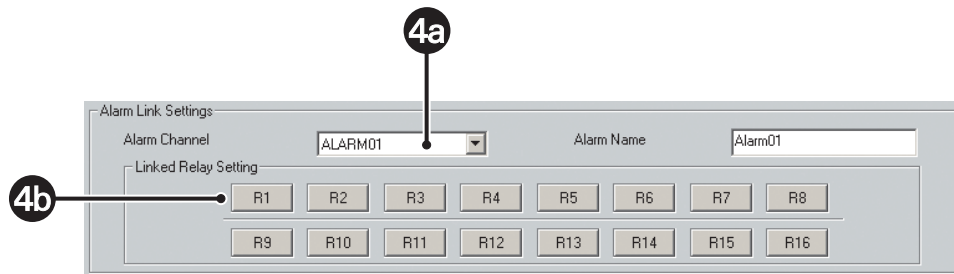
**Figure 89.** Event-Relay Link Settings: Motion Detection Link Settings Section

## Linking Relay Outputs to Alarm Events

To set relay outputs to activate in response to an alarm event:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click .
3. Click the Event-Relay Link Settings tab.
4. In the Alarm Link Settings section, do the following:
  - a. Select an alarm channel from the Alarm Channel drop-down box.
  - b. Click the button for each relay you want to link to the selected alarm.



You can also drag relays onto alarms in the Site tree while in Live mode (main screen).
5. Click Apply.



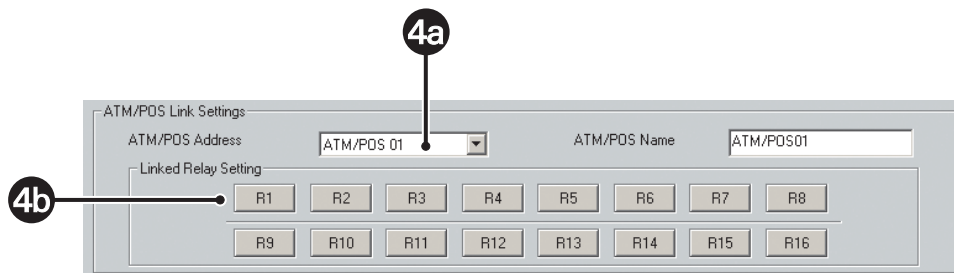
**Figure 90.** Event-Relay Link Settings: Alarm Link Settings Section

## Linking Relay Outputs to ATM/POS Events

To set relay outputs to activate in response to an ATM/POS event:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click .
3. Click the Event-Relay Link Settings tab.
4. In the ATM/POS Link Settings section, do the following:
  - a. Select an ATM/POS address from the ATM/POS Address drop-down box.
  - b. Click the button for each relay you want to link to the selected ATM/POS address.



You can also drag relays onto ATM/POS devices in the Site tree while in Live mode (main screen).
5. Click Apply.

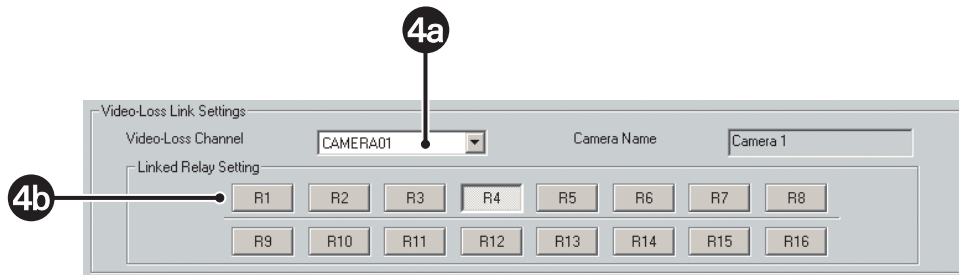


**Figure 91.** Event-Relay Link Settings: ATM/POS Link Settings Section

## Linking Relay Outputs to Video Loss Events

To set relay outputs to activate in response to a video loss event:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click .
3. Click the Event-Relay Link Settings tab.
4. In the Video-Loss Link Settings section, do the following:
  - a. Select a camera from the Video-Loss Channel drop-down box.
  - b. Click the button for each relay you want to link to the selected Video-Loss Channel.
5. Click Apply.



**Figure 92.** Event-Relay Link Settings: Video-Loss Link Settings Section



## LINKING CAMERAS TO RECORD IN RESPONSE TO EXTERNAL EVENTS

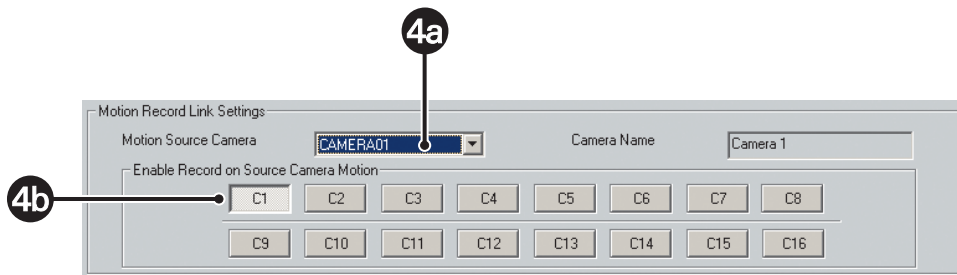
Multiple cameras can be configured to begin recording in response to detected motion, alarm, ATM/POS transaction, and video loss events. This section describes how to link cameras to record in response to these events and includes the following topics:

- [Linking Cameras to Record in Response to Motion Events](#) on page 138
- [Linking Cameras to Record in Response to Alarm Events](#) on page 138
- [Linking Cameras to Record in Response to ATM/POS Events](#) on page 139
- [Linking Cameras to Record in Response to Video Loss Events](#) on page 139

## Linking Cameras to Record in Response to Motion Events

To link multiple cameras to record in response to motion detection events:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Linking page is displayed.
3. Click the Event-Recording Link Settings tab.
4. In the Motion Record Link Settings section, do the following:
  - a. Select a camera from the Motion Source Camera drop-down box.
  - b. Click the button of each camera you want to begin recording when motion is detected by the source camera.
5. Click Apply.

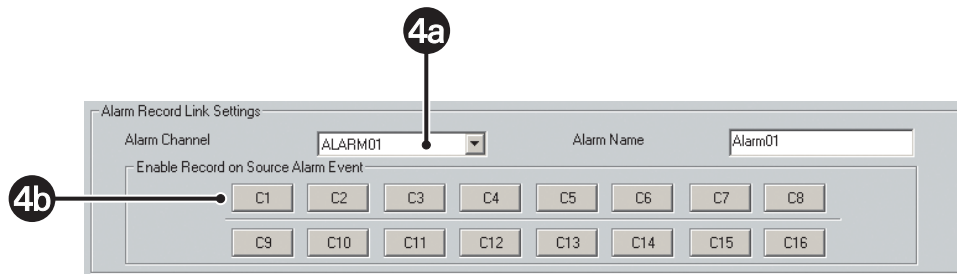


**Figure 93.** Event-Relay Link Settings: Video-Loss Link Settings Section

## Linking Cameras to Record in Response to Alarm Events

To link multiple cameras to record in response to a single alarm input:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Linking page is displayed.
3. Click the Event-Recording Link Settings tab.
4. In the Alarm Record Link Settings section, do the following:
  - a. Select an Alarm channel from the Alarm Channel drop-down box.
  - b. Click the button of each camera you want to begin recording when the source alarm is triggered.
5. Click Apply.

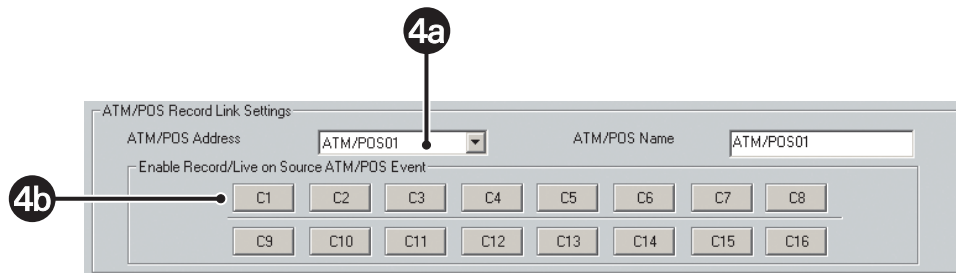


**Figure 94.** Event-Recording Link Settings: Alarm Record Link Settings Section

## Linking Cameras to Record in Response to ATM/POS Events

To link multiple cameras to record in response to an ATM/POS event:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Linking page is displayed.
3. Click the Event-Recording Link Settings tab.
4. In the ATM/POS Record Link Settings section, do the following:
  - a. Select an ATM/POS address from the ATM/POS address drop-down box.
  - b. Click the button of each camera you want to begin recording in response to an ATM/POS event.
5. Click Apply.

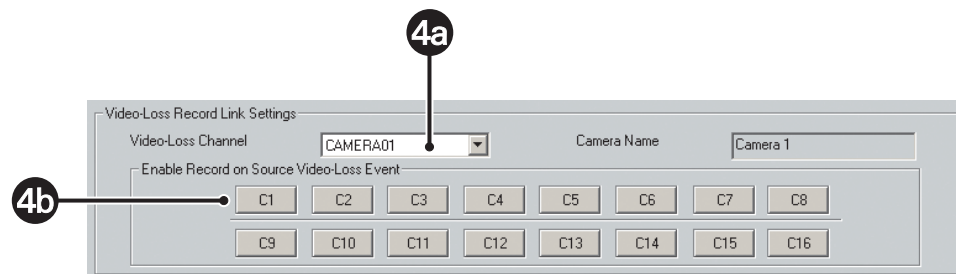


**Figure 95.** Event-Recording Link Settings: ATM/POS Record Link Settings Section

## Linking Cameras to Record in Response to Video Loss Events

To link multiple cameras to record in response to a video loss event:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Linking page is displayed.
3. Click the Event-Recording Link Settings tab.
4. In the Video-Loss Record Link Settings section, do the following:
  - a. Select a camera from the Video-Loss Channel drop-down box.
  - b. Click the button of each camera you want to begin recording in response to a video loss event.
5. Click Apply.



**Figure 96.** Event-Recording Link Settings: Video-Loss Record Link Settings Section

## LINKING PTZ PRESETS AND PATTERNS TO EXTERNAL EVENTS



The DX8000 can be configured in such a way that motion, alarms, ATM/POS transactions, and video loss events detected by one camera will result in the repositioning of another. Similarly, alarm inputs can be set to trigger camera-positioning presets. Only a single preset or pattern can be linked to a camera.

This section describes how to link PTZ presets and patterns to motion and alarm events and includes the following topics:

- [Linking PTZ Presets and Patterns to Motion Events](#) on page 140
- [Linking PTZ Presets and Patterns to Alarm Events](#) on page 141
- [Linking Presets and Patterns to ATM/POS Events](#) on page 142
- [Linking Presets and Patterns to Video Loss Events](#) on page 143

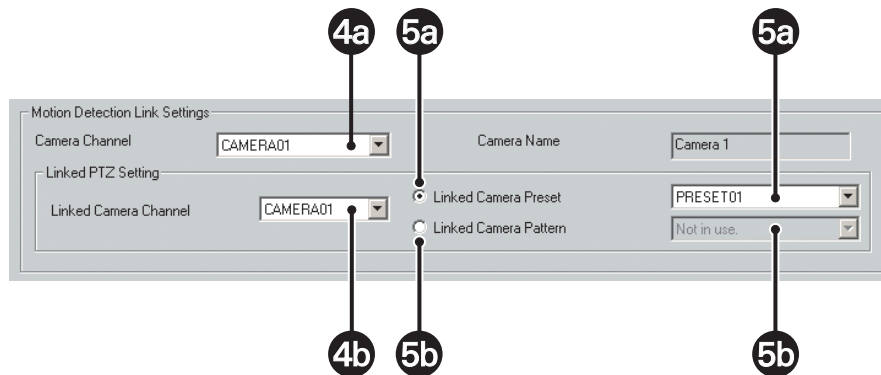
### Linking PTZ Presets and Patterns to Motion Events

To link two cameras so that motion detected on one results in the repositioning of another:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Linking page is displayed.
3. Click the Event-PTZ Link Settings tab.
4. In the Motion Detection Link Settings section, do the following:
  - a. Select a camera from the Camera Channel drop-down box. (This camera will be the motion source.)
  - b. In the Linked PTZ Setting section, select a camera to be linked from the Linked Camera Channel drop-down box. (This camera will change PTZ position in response to motion detected by the source camera.)
5. To select a PTZ preset or pattern for the linked camera, in the Linked PTZ Setting section, do the one of the following:
  - To force the linked camera to move to a PTZ preset in response to motion detected by the source camera:
    - (1) Click the Linked Camera Preset radio button to select this option.
    - (2) In the Preset drop-down box, select a PTZ preset (1–150) for the camera to move to.
  - To force a PTZ pattern to be activated in response to motion detected by the source camera:
    - (1) Click the Linked Camera Pattern radio button to select this option.
    - (2) In the Pattern drop-down box, select a PTZ pattern (1-4) to be activated on the camera.

The selected camera must support PTZ functions and at least one PTZ preset/pattern must be defined for this function to work.

6. Click Apply.





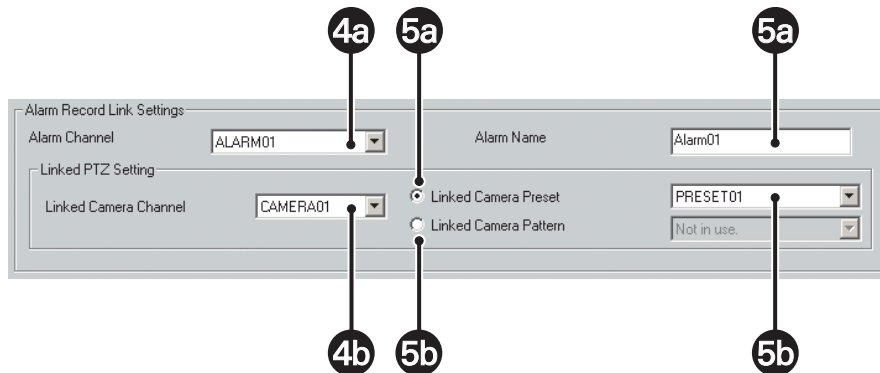
**Figure 97.** Event-PTZ Link Settings: Linking Presets and Patterns to Motion Events



## Linking PTZ Presets and Patterns to Alarm Events

To link an alarm input to a camera so that activation of the alarm results in a repositioning of that camera:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
  2. Click . The Linking page is displayed.
  3. Click the Event-PTZ Link Settings tab.
  4. In the Alarm Record Link Settings section, do the following:
    - a. Select an alarm from the Alarm Channel drop-down box.
    - b. In the Linked PTZ Setting section, select a camera to be linked from the Linked Camera Channel drop-down box. (This camera will change PTZ position in response to an alarm input detected by the source alarm.)
  5. To select a PTZ preset or pattern for the linked camera, in the Linked PTZ Setting section, do the one of the following:
    - To force the linked camera to move to a PTZ preset in response to an alarm input detected by the source camera:
      - (1) Click the Linked Camera Preset radio button to select this option.
      - (2) In the Preset drop-down box, select a PTZ preset (1–150) for the camera to move to.
    - To force a PTZ pattern to be activated in response to alarm input detected by the source camera:
      - (1) Click the Linked Camera Pattern radio button to select this option.
      - (2) In the Pattern drop-down box, select a PTZ pattern (1-4) to be activated on the camera.
- The selected camera must support PTZ functions and at least one PTZ preset/pattern must be defined for this function to work.
6. Click Apply.

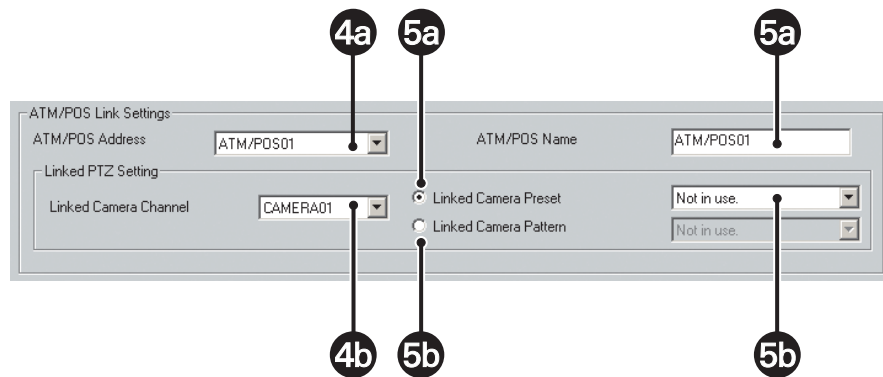


**Figure 98.** Event-PTZ Link Settings: Linking Presets and Patterns to Alarm Events

## Linking Presets and Patterns to ATM/POS Events

To link an ATM/POS input to a camera so that the detected ATM/POS event results in a repositioning of that camera:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
  2. Click . The Linking page is displayed.
  3. Click the Event-PTZ Link Settings tab.
  4. In the ATM/POS Link Settings section, do the following:
    - a. Select an ATM/POS address from the ATM/POS Address drop-down box.
    - b. In the Linked PTZ Setting section, select a camera to be linked from the Linked Camera Channel drop-down box. (This camera will change PTZ position in response to an ATM/POS input detected by the source ATM/POS device.)
  5. To select a PTZ preset or pattern for the linked camera, in the Linked PTZ Setting section, do the one of the following:
    - To force the linked camera to move to a PTZ preset in response to an ATM/POS input detected by the source camera:
      - (1) Click the Linked Camera Preset radio button to select this option.
      - (2) In the Preset drop-down box, select a PTZ preset (1–150) for the camera to move to.
    - To force a PTZ pattern to be activated in response to ATM/POS input detected by the source camera:
      - (1) Click the Linked Camera Pattern radio button to select this option.
      - (2) In the Pattern drop-down box, select a PTZ pattern (1-4) to be activated on the camera.
- The selected camera must support PTZ functions and at least one PTZ preset/pattern must be defined for this function to work.
6. Click Apply.

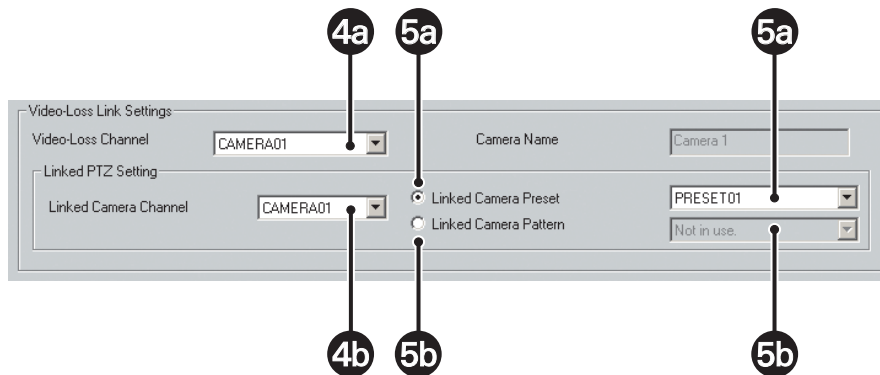


**Figure 99.** Event-PTZ Link Settings: Linking Presets and Patterns to ATM/POS Events

## Linking Presets and Patterns to Video Loss Events

To link a video loss event to a camera so that the detected video loss event results in a repositioning of that camera:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
  2. Click . The Linking page is displayed.
  3. Click the Event-PTZ Link Settings tab.
  4. In the Video-Loss Link Settings section, do the following:
    - a. Select a camera channel from the Video-Loss Channel drop-down box.
    - b. In the Linked PTZ Setting section, select a camera to be linked from the Linked Camera Channel drop-down box. (This camera will change PTZ position in response to a video loss event detected by the source camera.)
  5. To select a PTZ preset or pattern for the linked camera, in the Linked PTZ Setting section, do the one of the following:
    - To force the linked camera to move to a PTZ preset in response to a video loss event detected by the source camera:
      - (1) Click the Linked Camera Preset radio button to select this option.
      - (2) In the Preset drop-down box, select a PTZ preset (1–150) for the camera to move to.
    - To force a PTZ pattern to be activated in response to video loss input detected by the source camera:
      - (1) Click the Linked Camera Pattern radio button to select this option.
      - (2) In the Pattern drop-down box, select a PTZ pattern (1-4) to be activated on the camera.
- The selected camera must support PTZ functions and at least one PTZ preset/pattern must be defined for this function to work.
6. Click Apply.



**Figure 100.** Event-PTZ Link Settings: Linking Presets and Patterns to Video Loss Events

## SCHEDULE SETUP

The DX8000 provides extensive scheduling capabilities. Flexible recording schedules can be established for daily, weekday, weekend, or individual day recording. Recording time can be broken up into increments of one-half hour, and each increment can be scheduled to record continuously or in response to an alarm, motion, or ATM/POS event. Users with Power User access and higher can create recording schedules.

This section describes how to setup recording schedules and includes the following topics:

- [Accessing the Schedule](#) on page 144
- [Setting Up the Camera Recording Mode](#) on page 146
- [Creating Yearly Recording Schedules](#) on page 148
- [Creating Monthly or Multiple-Day Recording Schedules](#) on page 150
- [Creating Single-Day Schedules](#) on page 151
- [Editing Schedules](#) on page 153
- [Working with Custom Camera Settings](#) on page 155
- [Configuring the Frame Rate](#) on page 157
- [Setting Up Advanced Relay Output](#) on page 160

## ACCESSING THE SCHEDULE

To access the scheduling features of the DX8000:

1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.

The following figure shows the Schedule page.

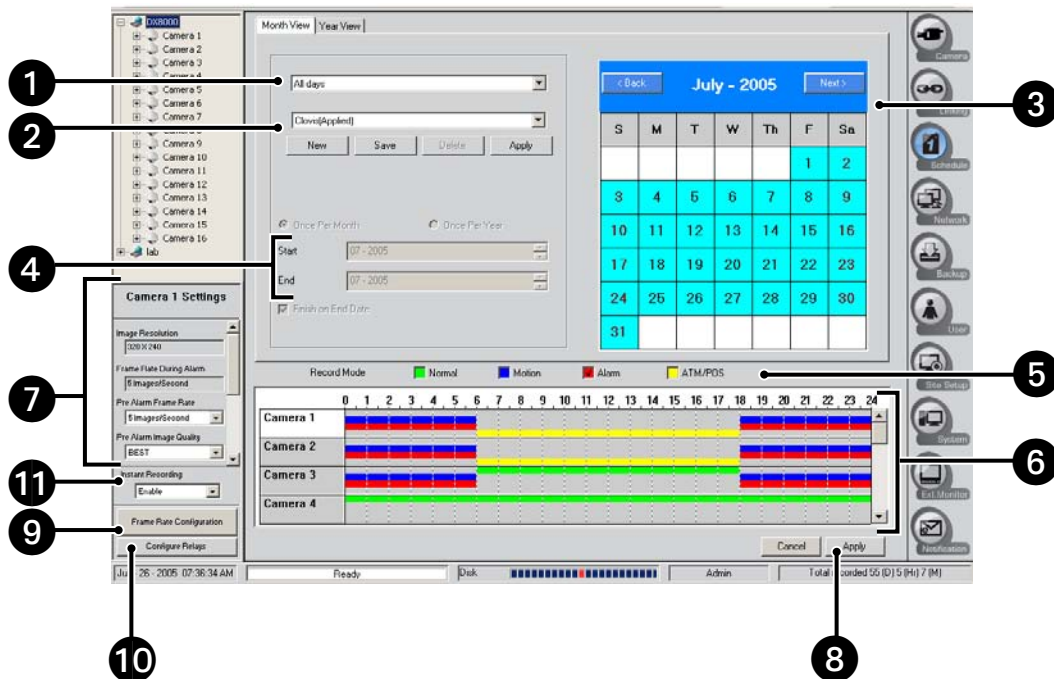


Figure 101. Schedule Page

The following table describes the parts of the Schedule page.

**Table AB. Parts of the Schedule Page**

Item	Part	Description
1	Schedule Type Drop-down Box	Selects the type of schedule. Options are as follows: <ul style="list-style-type: none"> <li>All days – Seven days a week</li> <li>Weekdays – Monday through Friday, with the exception of any day assigned in Custom mode</li> <li>Weekends – Saturday and Sunday, with the exception of any day assigned in Custom mode</li> <li>Custom Mode – Any day, such as a holiday</li> </ul>
2	Recording Schedule Profile	Allows you to do the following: <ul style="list-style-type: none"> <li>Select and apply an existing schedule profile.</li> <li>Create and save a new profile.</li> <li>Change an existing profile.</li> <li>Delete an existing profile.</li> </ul>
3	Calendar	Displays current schedule profile in accordance with the schedule type selected (All Days, Weekdays, Weekends, or Custom Mode).
4	Start and End Date Markers	Sets the start and end dates for a custom schedule.
5	Record Mode	Selects a recording mode to be applied to a camera. Options are as follows: <ul style="list-style-type: none"> <li>Normal</li> <li>Motion</li> <li>Alarm</li> <li>ATM/POS</li> </ul>
6	Channel Scheduling Panel	Allows the assignment of recording modes across individual camera channels over a 24-hour period.
7	Camera Settings Panel	Allows custom settings to be applied to individual cameras for each recording mode.
8	Apply	Saves current schedule.
9	Frame Rate Configuration	Allows configuration of channel resolution and frame rates.
10	Configure Relays	Allows configuration of relays that have been linked to cameras and alarms.
11	Instant Recording	Enables or disables selection of instant recording from the View menu.

## SETTING UP THE CAMERA RECORDING MODE



The DX8000 allows you to schedule each camera to record in a single or multiple modes across a 24-hour timeline. Users with Power User access or higher can schedule video recording for one or more cameras. Use the Record Mode section near the bottom of the Schedule page to configure the recording mode for each camera.

This section describes how to schedule a recording mode and includes the following topics:

- [Scheduling a Record Mode](#) on page 146
- [Clearing a Scheduled Recording](#) on page 147

### Scheduling a Record Mode

To schedule a record mode for one or more channels:

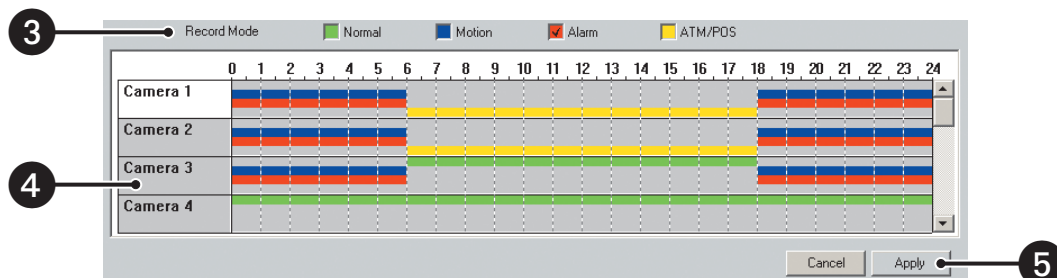
1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click the check box for the record mode you want to apply to a channel.
  - Normal
  - Motion
  - Alarm
  - ATM/POS

The following table describes the record modes.

**Table AC. Record Modes**

Mode	Color	Description
Normal	Green	Continuous recording.
Motion	Blue	Recording is triggered during the selected time block if a motion event is detected in the camera's predefined motion field. For information on motion detection, refer to <a href="#">Motion Detection Setup</a> on page 129.
Alarm	Red	Recording is triggered during the selected time block when an alarm is activated. At least one alarm must be linked to the camera for this option to work. For information on alarms, refer to <a href="#">Linking Alarm Inputs to a Camera</a> on page 51.
ATM/POS	Yellow	Recording is triggered during the selected time block if an ATM or POS event is detected in the camera's predefined ATM/POS field. For information on ATM/POS detection, refer to <a href="#">Linking Cameras to Record in Response to ATM/POS Events</a> on page 139.

4. Click and drag to highlight the time periods and channels where you want the recording mode to apply.  
Drag the mouse diagonally to highlight periods across multiple camera channels simultaneously.
5. Click Apply.



**Figure 102. Filling In Recording Blocks in Schedule Grid**

## Clearing a Scheduled Recording

The DX8000 Schedule feature allows you to do the following:



- For one or multiple channels, clear scheduled recording times for a specific record mode at the same time. You can select one channel or you can drag and select a group of channels. For example, you can drag and select the recording times for channel 1, 2, 3, 4...16. However, the system does not allow you to select random channels from the list. For example, you are not allowed to select channel 1, 2, and 4. Notice that in this list, camera 3 is not selected.
- For one or multiple channels, you can clear the scheduled recording times for all record modes simultaneously.
- You can select and clear recording times periods in increments of 30 minutes to 24 hours.

This section describes how to clear a scheduled recording and includes the following sections:

- [Clearing Recording Times for a Specific Record Mode](#) on page 147
- [Clearing Recording Times for All Record Modes](#) on page 148

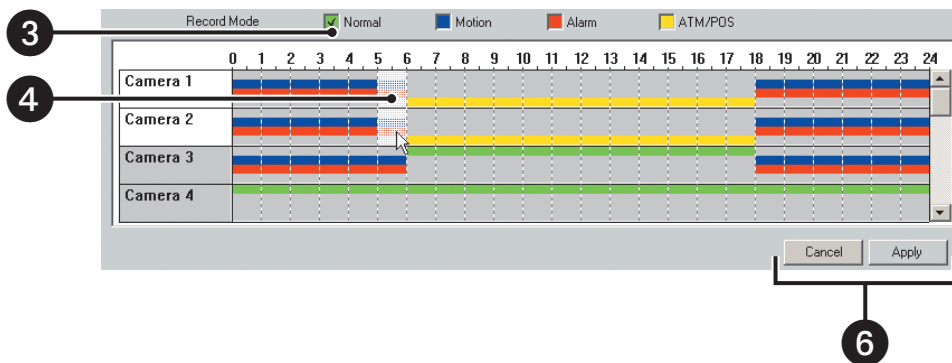
### Clearing Recording Times for a Specific Record Mode

To clear the scheduled recording times for a specific record mode for one or more channels:

1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click a record mode check box to select the specific record mode.
4. Right-click and drag to highlight the time periods and channels that you want to *clear* recording times.
5. Release the right mouse button.

The highlighted recording times are cleared.



6. Do one of the following:
  - To accept the change, click Apply. The selected time period is deleted.
  - To cancel the change, click Cancel. The deleted recording times are restored.



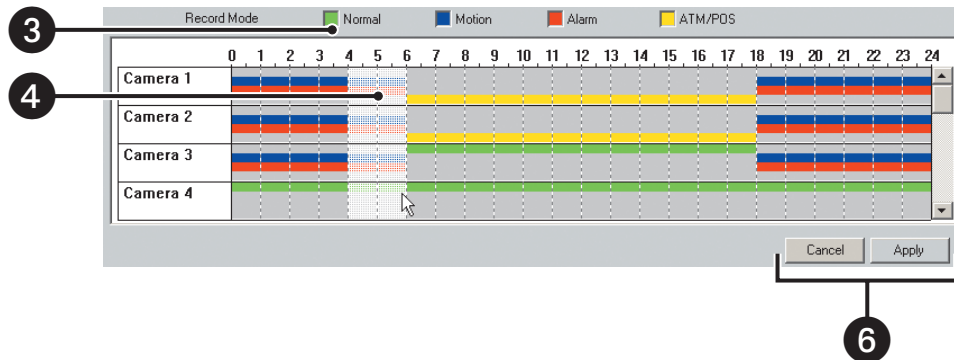
**Figure 103.** Clearing Recording Times for a Specific Record Mode

## Clearing Recording Times for All Record Modes

To clear the scheduled recording times for all record modes:

1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click a record mode check box to deselect the record mode. No record mode is selected.
4. Right-click and drag to highlight the time periods and channels that you want to *clear* recording times.
5. Release the right mouse button.  
The highlighted recording times are cleared.

6. Do one of the following:
  - To accept the change, click Apply. The selected time period is deleted.
  - To cancel the change, click Cancel. The deleted recording times are restored.



**Figure 104.** Clearing Recording Times for All Record Modes

## CREATING YEARLY RECORDING SCHEDULES

The DX8000 allows you create and save various recording schedules. This section describes how to create yearly recording schedules and includes the following sections:

- [Creating a Yearly Recording Schedule](#) on page 148
- [Scheduling Individual Days Using the Year View](#) on page 149
- [Copying Schedule Attributes to a Different Day](#) on page 149

### Creating a Yearly Recording Schedule



Year View allows a user to customize recording schedules for individual days. Year View displays daily recording schedules in a calendar format. The calendar displays one year's worth of daily recording schedules. The scheduling period begins in the current month.

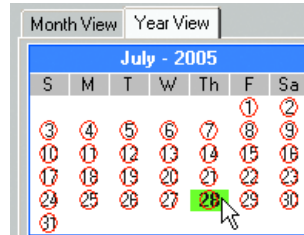
- Days circled in red have been assigned weekday, weekend, or everyday recording schedules.
- Days circled in blue have been assigned a custom recording schedule.
- Days without circles denote that no recording has been scheduled for that day.



## Scheduling Individual Days Using the Year View

To schedule individual days using the Year View:

1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click the Year View tab. The Year View page is displayed.
4. Click the day you want to schedule.





**Figure 105.** Calendar Date Selection

5. Using your mouse, select the recording modes and times for each channel you want to schedule. For information on selecting a recording mode, refer to [Setting Up the Camera Recording Mode](#) on page 146.
6. Repeat steps 2 and 3 for each additional day you want to schedule.
7. Click Apply.

## Copying Schedule Attributes to a Different Day

To copy the schedule attributes of one day and apply them to a different day:

1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Right-click the calendar day you want to copy.
4. Select Copy from the quick-menu.



**Figure 106.** Year View Calendar Quick-Menu

5. Right-click the day on the calendar you want to apply the copied schedule attributes.
6. Select Paste from the quick-menu.
7. Click Apply.

To change a custom schedule day to a regular schedule day, right-click and select "Revert to daily schedule" from the quick-menu.

## CREATING MONTHLY OR MULTIPLE-DAY RECORDING SCHEDULES



Unlike schedules set in the Year View, Month View schedules are recurrent. Schedules can be set for subsequent weekdays, weekends, every day, or a single day.

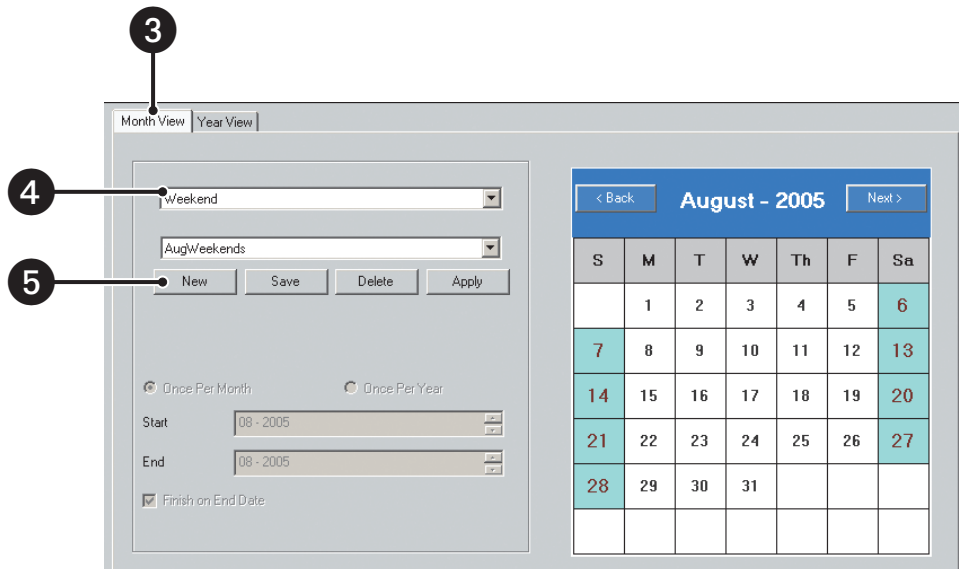
This section describes how to create a monthly or multiple-day schedule and includes the following topics:

- [Creating Multiple-Day Schedules](#) on page 150
- [Creating Single-Day Schedules](#) on page 151

### Creating Multiple-Day Schedules

To create a recording schedule to recur indefinitely:

1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click the Month View tab if it is not currently selected.
4. Select All days, Weekday, or Weekends from the drop-down box.
5. Click New. The New File Name dialog box opens.
6. In the New File Name text box, enter a new filename for the profile.  
The profile file name follows the standard Windows file-naming conventions.
7. Click OK.
8. Using your mouse, select the recording modes and times for each camera you want to schedule. For information on camera scheduling, refer to [Setting Up the Camera Recording Mode](#) on page 146.
9. Click Save.
10. Click Apply.
11. Click the Apply button at the bottom of the Schedule page.



**Figure 107.** Month View Page: Multi-Day Schedule

## **Creating Single-Day Schedules**



This section describes how to create a single-day schedule and includes the following topics:

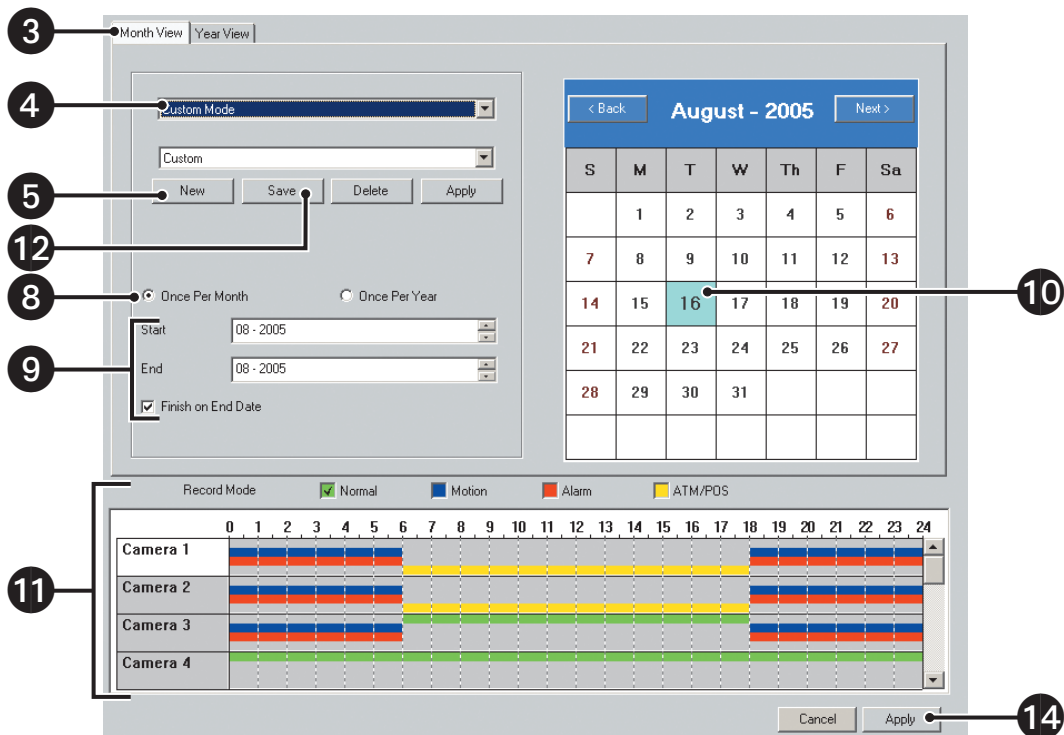
- [Working with Single-Day Schedules](#) on page 151
- [Copying and Applying Schedule Attributes](#) on page 152

### **Working with Single-Day Schedules**

Custom Mode schedules are defined for single days only. A custom-scheduled day can be set to recur on the same day of every month or the same day every year.

To set the DVR to record on a specific day:



1. From the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click the Month View tab if it is not currently selected.
4. Select Custom Mode from the drop-down box.
5. Click New. The New File Name dialog box opens.
6. Enter a new file name for the profile.  
The profile file names follow the standard Windows file-naming conventions.
7. Click OK.
8. Select Once Per Month or Once Per Year.
9. Select the date range for the custom schedule.
  - a. Set the start date with the Start spinner buttons.  
The start date cannot be set later than the end date.
  - b. If you want the schedule to recur indefinitely, deselect the Finish on End Date check box.
  - c. Set the end date with the End spinner buttons.
10. Click the date on the calendar you want to schedule.
11. Select the recording modes and times for each camera you want to schedule. Refer to [Setting Up the Camera Recording Mode](#) on page 146 for instructions.
12. Click Save.
13. Click Apply.
14. Click the Apply button at the bottom of the screen.



**Figure 108.** Month View Page: Single-Day Schedule

### Copying and Applying Schedule Attributes

To copy the schedule attributes of one day and apply them to a different day:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Right-click the calendar day you want to copy.
4. Select Copy from the quick-menu.



**Figure 109.** Month View Calendar Quick-Menu

5. Right-click on the calendar day to which you want to apply the copied schedule attributes.
6. Select Paste from the quick-menu.
7. Click the Apply button at the bottom of the screen.

To change a custom schedule day to a regular schedule day, right-click and select "Revert to daily schedule" from the quick-menu.



## EDITING SCHEDULES

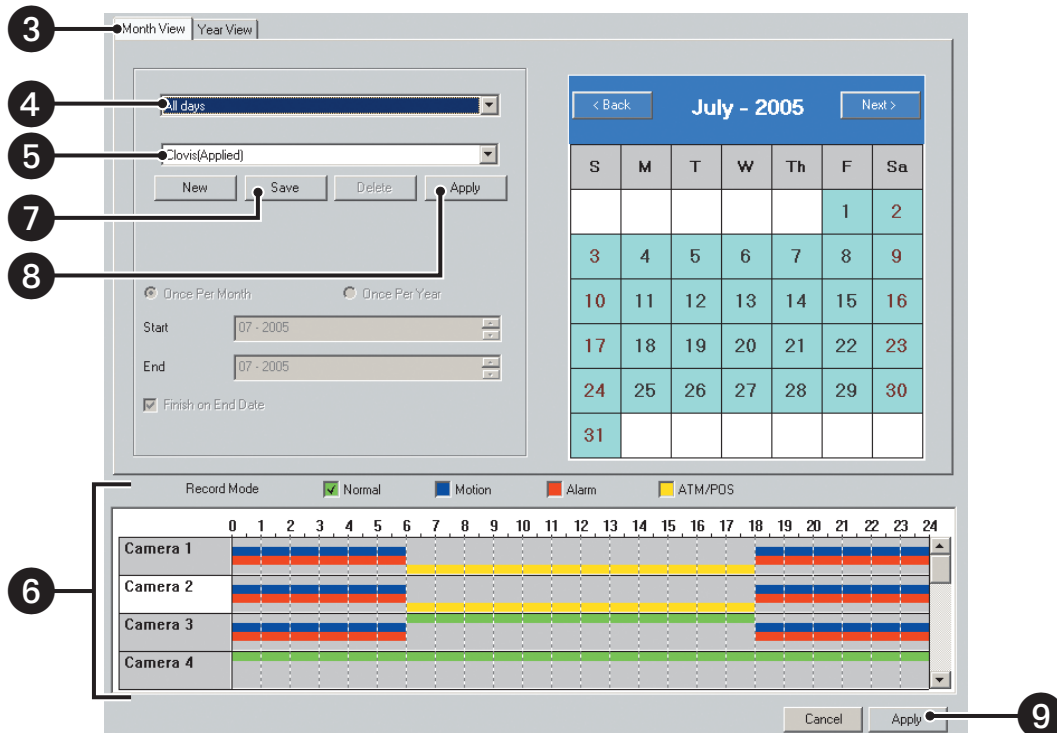
This section describes how to edit a schedule to change its profile or delete a schedule and includes the following topics:

- [Changing an Existing Schedule Profile](#) on page 153
- [Deleting an Existing Schedule Profile](#) on page 154

### Changing an Existing Schedule Profile



To change a profile:

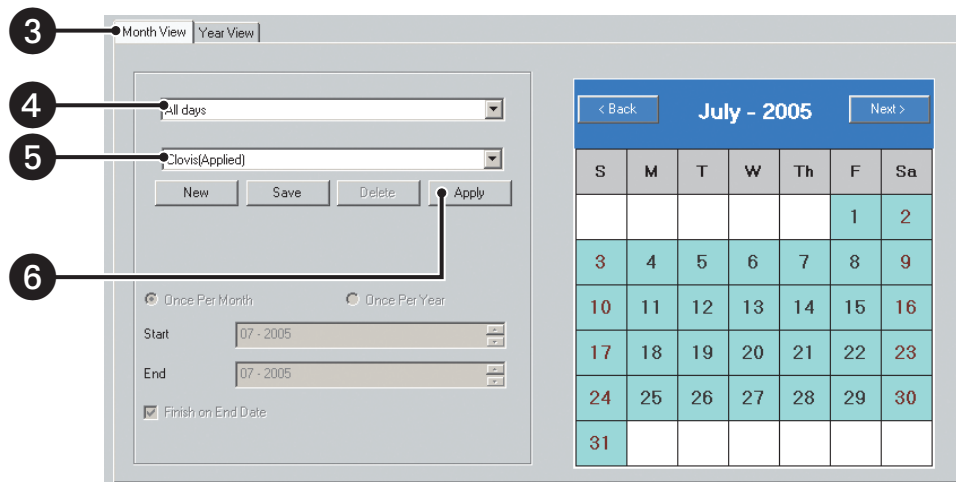
1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click the Month View tab if it is not currently selected.
4. In the drop-down box, select the type of schedule you want to change. Options are as follows:
  - All Days
  - Weekdays
  - Weekends
  - Custom Mode
5. Select the schedule profile from the drop-down box.
6. Using your mouse, assign new recording modes and times for each camera you want to schedule. Refer to [Setting Up the Camera Recording Mode](#) on page 146 for instructions.
7. Click Save.
8. Click Apply.
9. Click the Apply button at the bottom of the screen.



## Deleting an Existing Schedule Profile

To delete a schedule profile:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click the Month View tab if it is not currently selected.
4. In the drop-down box, select the type of schedule you want to change. Options are as follows:
  - All days
  - Weekdays
  - Weekends
  - Custom Mode
5. In the drop-down box, select a profile that is *different* from the one you want to delete. (This step is necessary because you cannot delete a schedule profile that is currently active.)
6. Click Apply.
7. In the drop-down box, select the profile that you want to delete.
8. Click Delete.
9. Click Apply.



## WORKING WITH CUSTOM CAMERA SETTINGS



This section describes how to configure customized camera settings and includes the following topics:

- [Configuring Custom Camera Settings](#) on page 155
- [Examples of Custom Camera Settings](#) on page 156

### Configuring Custom Camera Settings

Each camera can be configured with custom recording settings.

To customize camera settings for normal, motion, alarm, or ATM/POS recording:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Schedule page is displayed.
3. Click the plus (+) sign next to a camera in the Site tree.
4. Select a recording mode from one of the following options:
  - Normal
  - Motion
  - Alarm
  - ATM/POS
5. In the Camera Settings section, click Frame Rate Configuration. The Frame Rate Configuration dialog box opens.
6. Adjust the parameters in the camera settings section.
7. Click OK.
8. Click Apply.

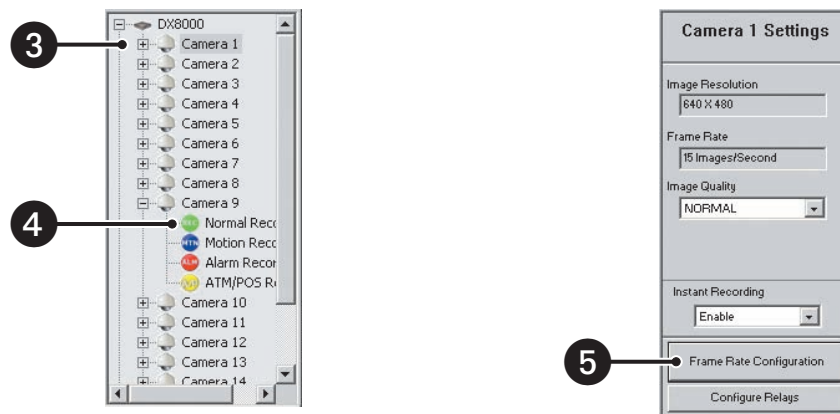


Figure 112. Custom Camera Settings Panel

## Examples of Custom Camera Settings

The DX8000 allows you configure customized camera settings for following recording modes:

- Normal
- Motion
- Alarm
- ATM/POS

The following figure shows camera settings for the supported modes.

**Figure 113.** Examples of Custom Camera Settings

The following table describes the settings for the supported modes.

**Table AD.** Camera Settings for the Supported Recording Modes

Normal	Motion	Alarm	ATM/POS
Image Resolution*	Image Resolution*	Image Resolution*	Image Resolution*
Frame Rate*	Frame Rate During Motion*	Frame Rate During Alarm*	Frame Rate During ATM/POS*
Image Quality** (Best, High, Normal, Low, Lowest)	Pre-Motion Frame Rate	Pre-Alarm Frame Rate	Pre-ATM/POS Frame Rate
	Pre-Motion Image Quality** (Best, High, Normal, Low, Lowest)	Pre-Alarm Image Quality** (Best, High, Normal, Low, Lowest)	Pre-ATM/POS Image Quality** (Best, High, Normal, Low, Lowest)
	Motion Image Quality** (Best, High, Normal, Low, Lowest)	Alarm Image Quality** (Best, High, Normal, Low, Lowest)	ATM/POS Image Quality** (Best, High, Normal, Low, Lowest)
	Pre-Motion (1-60 sec)	Pre-Alarm (1-60 sec)	Pre-Event (1-60 sec)
	Post-Motion (1-180 sec)	Post-Alarm (1-180 sec)	Post-Event (1-180 sec)

\*This field appears for information purposes only. To change this setting, refer to [Configuring the Frame Rate](#) on page 157.

\*\*Image quality is a function of video compression. Higher quality video images require larger file sizes.



## CONFIGURING THE FRAME RATE

The DX8000 can record at frame rates up to 480 images per second (ips) by National Television System Committee (NTSC) standards and 400 ips by Phase Alternating Line (PAL) standards.

This total frame rate capacity is distributed among eight or sixteen cameras, depending on the configuration of your unit. Resolution and frame rate values can be assigned evenly among all cameras or can be configured independently for individual cameras. Frame rate values can also be customized according to recording mode type (normal, alarm, or motion).



Two setup modes are provided to allow Power Users and Administrators to configure recording frame rates on the DX8000. All cameras are optimized to provide 30 ips frame rates at 320 x 240 resolution for NTSC (352 x 288 resolution for PAL). Basic mode allows changes to be made in the frame rates available to each camera, while resolution values must remain constant. Advanced mode allows users to change both frame rate and resolution settings.

This section describes how to configure the frame rate and includes the following topics:

- [Accessing the Frame Rate Configuration Dialog Box](#) on page 157
- [Setting the Basic Frame Rate](#) on page 157
- [Setting the Advanced Frame Rate](#) on page 158
- [Understanding the DX8000 Frame Rate Calculations](#) on page 160

### Accessing the Frame Rate Configuration Dialog Box



To access the Frame Rate Configuration dialog box:

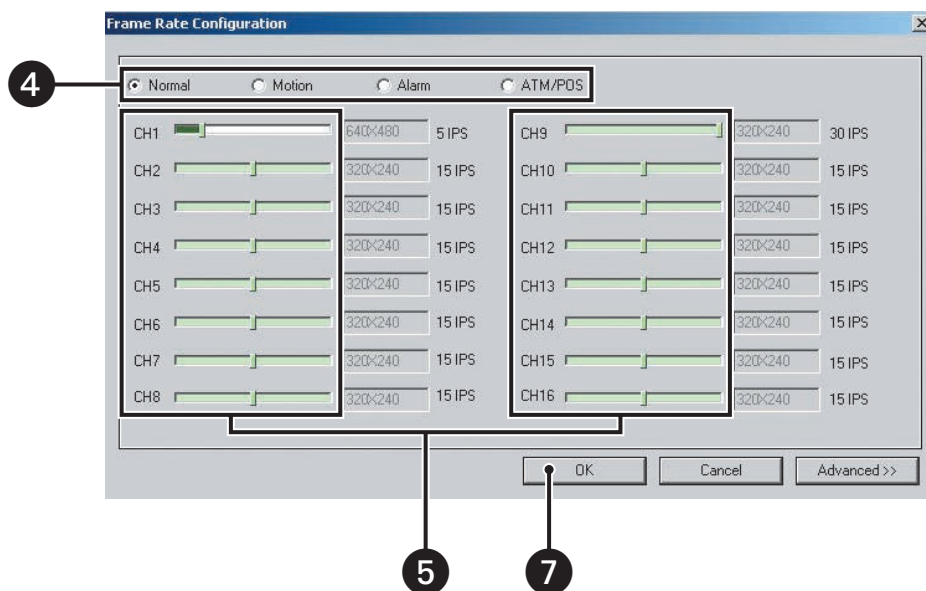
1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click . The Schedule page is displayed.
3. In the Camera Settings section, click Frame Rate Configuration. The Frame Rate Configuration dialog box opens.

### Setting the Basic Frame Rate

The DX8000 Series DVR is optimized to provide sixteen cameras of continuous video recording with a frame rate of 30 ips at a resolution of 320 x 240 (NTSC). Basic mode allows only frame rate adjustments to be made. Access the Frame Rate Configuration dialog box to set the basic frame rate. For information on accessing the Frame Rate Configuration dialog box, refer to [Accessing the Frame Rate Configuration Dialog Box](#) on page 157.

To set frame rate values for cameras in Basic mode:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click . The Schedule page is displayed.
3. In the Camera Settings section, click Frame Rate Configuration. The Frame Rate Configuration dialog box opens.
4. Select the radio button of the recording mode you want to configure. Options are as follows:
  - Normal
  - Motion
  - Alarm
  - ATM/POS
5. Using the slider, select a frame rate from 1 to 30 ips for the desired camera.  
The eight-camera DVRs only have eight sliders.
6. Repeat steps 1 and 2 for each camera you want to configure.
7. Click OK.
8. Click Apply at the Schedule page.





**Figure 114.** Frame Rate Configuration Dialog Box

### Setting the Advanced Frame Rate

Both resolution and frame rate settings can be adjusted using the Advanced Frame Rate dialog box. Access the Frame Rate Configuration dialog box to set the advance frame rate. For information on accessing the Frame Rate Configuration dialog box, refer to [Accessing the Frame Rate Configuration Dialog Box](#) on page 157.

To set recording resolution and frame rates for each channel:

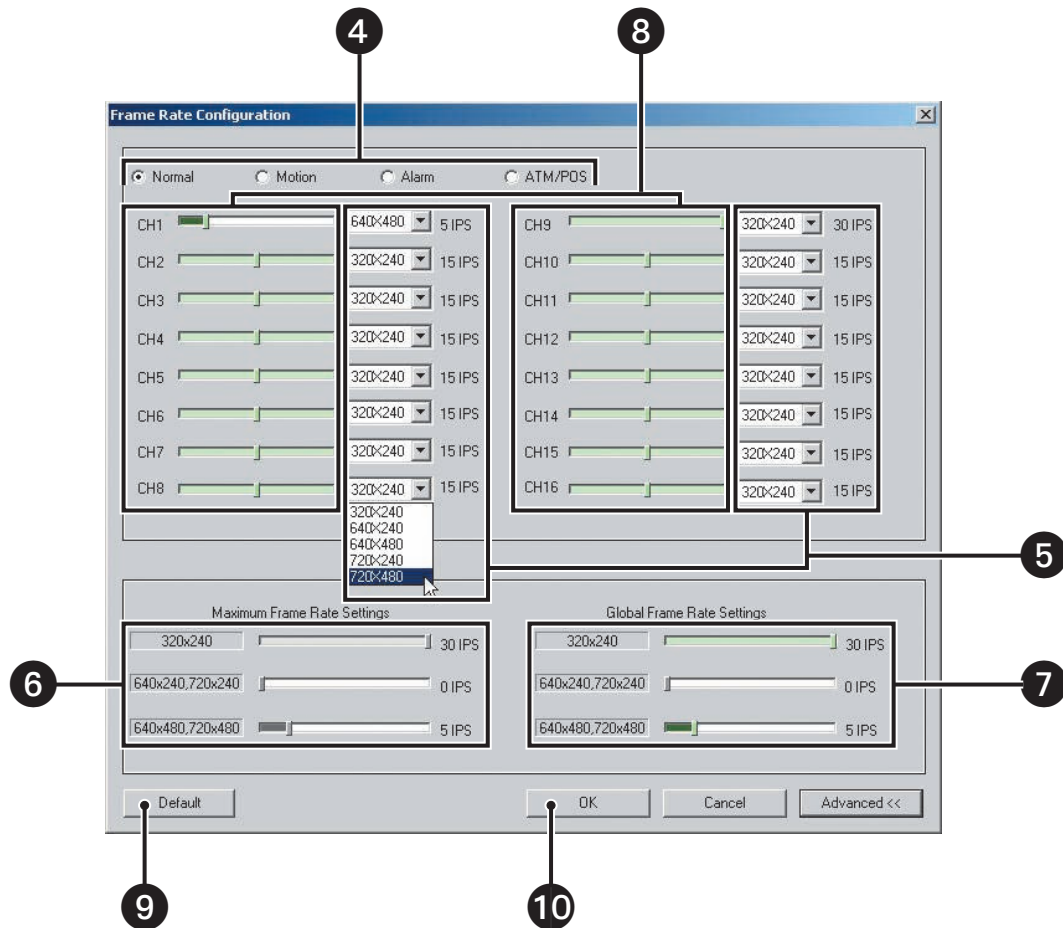
1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click . The Schedule page is displayed.
3. In the Frame Rate Configuration dialog box, click Advanced. The advanced frame rate configuration controls are displayed.
4. Select the radio button of the recording mode you want to configure. Options are as follows:
  - Normal
  - Motion
  - Alarm
  - ATM/POS
5. Select resolution values for individual channels from the drop-down boxes. The following table describes the available resolution values.

Setting a resolution value for one recording mode sets the resolution value for all modes. For example, setting resolution to 640 x 480 in Motion recording mode will change the resolution to 640 x 480 in Normal and Alarm recording modes as well.

**Table AE.** Resolution Values

Video Format	NTSC	PAL
CIF	320 x 240	352 x 288
2CIF	640 x 240	704 x 288
4CIF	640 x 480	704 x 576
2CIF	720 x 240	720 x 288
4CIF	720 x 480	720 x 576

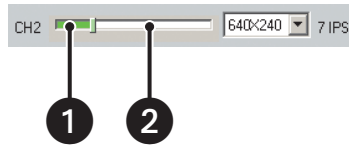
6. Using the Maximum Frame Rate Settings sliders, set the maximum frame rate for each resolution.
- Setting the maximum frame rate for a resolution will impose a limit on how high frame rates can be set on individual channels using that resolution. In certain cases, setting a lower maximum frame rate for a particular resolution may free up resources to be used by channels set at another resolution. In any case, frame rates cannot be set for any channel or resolution beyond the availability calculated by the DX8000.
7. To set a global frame rate for all channels of a particular resolution type, move the slider under Global Frame Rate Settings. Select a frame rate from 1 to 30 ips according to the available capacity for that resolution.
  8. To set the frame rate for individual channels, use the sliders in the top portion of the screen. Select a frame rate from 1 to 30 ips according to the available capacity for that channel.
  9. Click Default to set the Maximum Frame Rate Settings values back to their factory defaults.
  10. Click OK.
  11. Click Apply when you return to the Schedule Setup screen.



**Figure 115.** Advanced Frame Rate Configuration Screen

## Understanding the DX8000 Frame Rate Calculations

The DX8000 uses a complex algorithm to calculate the amount of recording resources available for each channel. This calculation takes into account factors such as the number of enabled cameras, whether uniform or mixed resolution values are used, recording type (continuous, alarm, or motion), and the frame rate settings of enabled channels. The resulting calculations provide the operator with a margin of available frame rate capacity to distribute among the recorder's channels. This margin of frame rate capacity, or "headroom," is presented to the user as color-filled sections of the frame rate sliders. White areas on the slider represent frame rate capacity that is not available to that channel. In certain cases, adjusting the available frame rates of one channel or resolution type may free up capacity for other channels. The following figure illustrates available and unavailable frame rate capacity.



**Figure 116.** Example of Frame Rate Capacity

The following table describes available and unavailable frame rate capacity.

**Table AF.** Frame Rate Capacity

Item	Description
1	Available frame rate capacity
2	Unavailable frame rate capacity

## SETTING UP ADVANCED RELAY OUTPUT

Relays work much like switches. When triggered, relays can activate external devices, such as sirens, light fixtures, and door locks. The DX8000 Series DVR allows Administrators and Power users to link relays to cameras and alarms. Up to 20 seconds of delay can be set from the moment an event is triggered to the time when a relay is activated.



Make sure you have linked relays to the appropriate cameras and alarm inputs before attempting to configure them. For instructions on linking alarms and relays, refer to [Linking Alarm Inputs to a Camera](#) on page 51 and [Linking Relay Outputs to Alarm Inputs](#) on page 51.

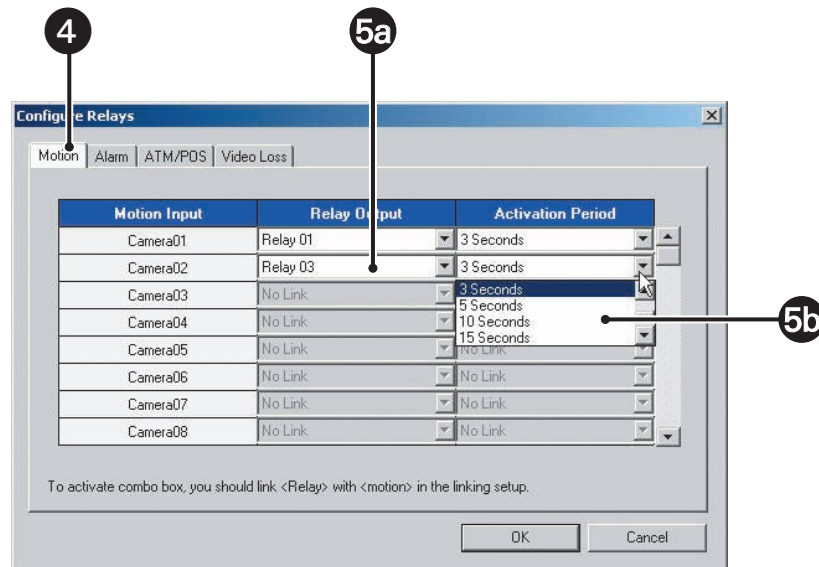
This section describes how to setup advanced alarm and motion relay output and includes the following topics:

- [Configuring Advanced Motion-Activated Relay Output](#) on page 161
- [Configuring Advanced Alarm-Activated Relay Output](#) on page 162
- [Configuring Advanced ATM/POS-Activated Relay Output](#) on page 163
- [Configuring Advanced Video Loss-Activated Relay Output](#) on page 164

## Configuring Advanced Motion-Activated Relay Output

To configure a motion relay output:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click . The Schedule page is displayed.
3. Click the Configure Relays button. The Configure Relays dialog box opens.
4. Click the Motion tab.
5. Configure each relay that is linked to a camera:
  - a. Click the drop-down box to select a relay.
  - b. Select a relay timing value from the Activation Period drop-down box.
6. Click Save.
7. Click Exit.



**Figure 117.** Linking Relays to Motion Detection



The following table describes the available options.

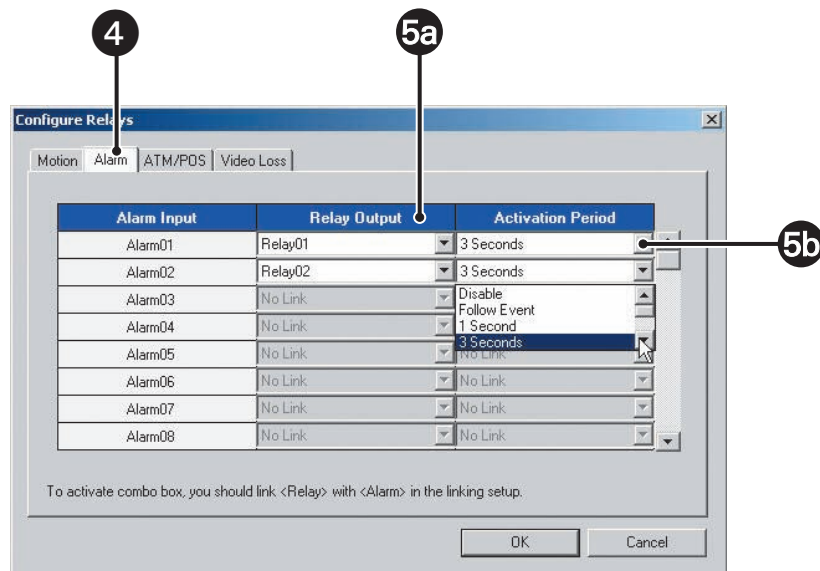
**Table AG.** Motion-Activated Relay Settings

Option	Result
Disable	Relay will not activate when the motion is detected.
Follow Event	Relay will activate at the exact same time motion is detected.
1, 3, 5, 10,15, and 20 Seconds	Sets the amount of time the relay will remain active after motion has been detected.

## Configuring Advanced Alarm-Activated Relay Output

To configure an alarm relay output:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click . The Schedule page is displayed.
3. Click the Configure Relays button. The Configure Relays dialog box opens.
4. Click the Alarm tab if it is not already selected.
5. Configure each relay that is linked to an alarm:
  - a. Click the drop-down box to select a relay.
  - b. Select a relay timing value from the Activation Period drop-down box.



**Figure 118.** Linking Relays to Alarms



The following table describes the available options.

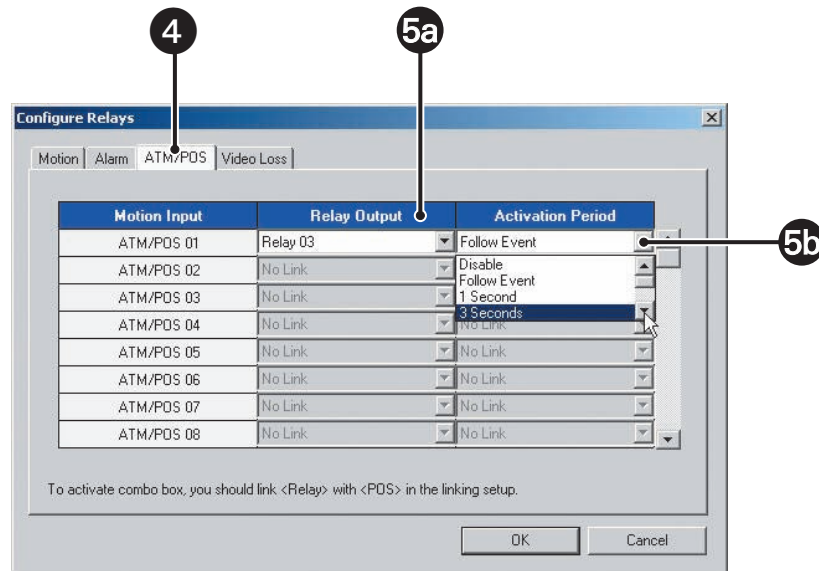
**Table AH.** Alarm-Activated Relay Settings

Option	Result
Disable	Relay will not activate when the alarm is triggered.
Follow Event	Relay will activate at the exact same time the alarm is triggered.
1, 3, 5, 10,15, and 20 Seconds	Sets the amount of time the relay will remain active after the alarm has been triggered.

## Configuring Advanced ATM/POS-Activated Relay Output

To configure an ATM/POS-activated relay output:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click . The Schedule page is displayed.
3. Click the Configure Relays button. The Configure Relays dialog box opens.
4. Click the ATM/POS tab if it is not already selected.
5. Configure each relay that is linked to an ATM/POS:
  - a. Click the drop-down box to select a relay.
  - b. Select a relay timing value from the Activation Period drop-down box.



**Figure 119.** Linking Relays to ATM/POS



The following table describes the available options.

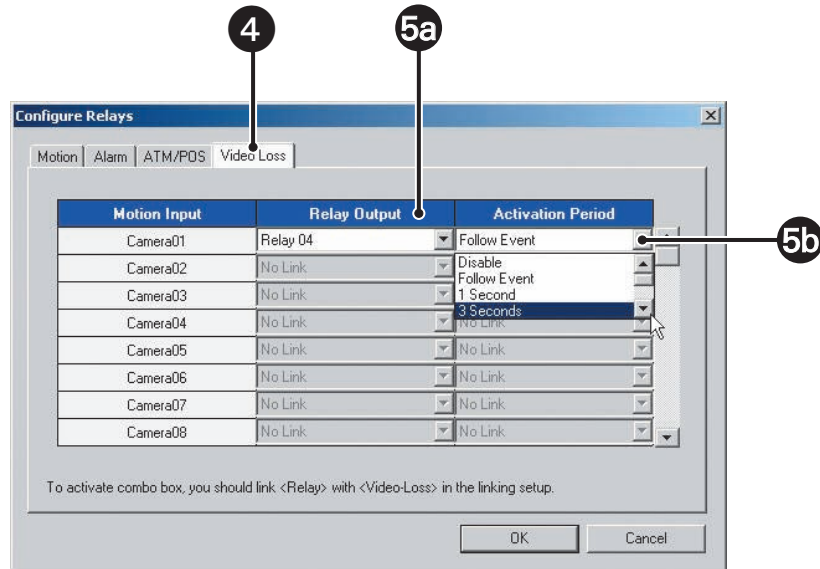
**Table AI.** ATM/POS-Activated Relay Settings

Option	Result
Disable	Relay will not activate when the ATM/POS event occurs.
Follow Event	Relay will activate at the exact same time the ATM/POS event occurs.
1, 3, 5, 10,15, and 20 Seconds	Sets the amount of time the relay will remain active after the ATM/POS event occurs.

## Configuring Advanced Video Loss-Activated Relay Output

To configure an advanced video loss-activated relay output:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. In the Setup dialog box, click . The Schedule page is displayed.
3. Click the Configure Relays button. The Configure Relays dialog box opens.
4. Click the Video Loss tab if it is not already selected.
5. Configure each relay that is linked to an alarm:
  - a. Click the drop-down box to select a relay.
  - b. Select a relay timing value from the Activation Period drop-down box.



**Figure 120.** Linking Relays to Video Loss

The following table describes the available options.

**Table AJ.** Video Loss-Activated Relay Settings

Option	Result
Disable	Relay will not activate when a video loss event occurs.
Follow Event	Relay will activate at the exact same time the video loss event happens.
1, 3, 5, 10,15, and 20 Seconds	Sets the amount of time the relay will remain active after the video loss event occurs.



## SETTING UP NETWORK PROPERTIES

Network settings cannot be changed from the DX8000 Client application. To change a DVR's network configuration, you must physically log in to a local DX8000 Series DVR as an Administrator or Power User. For more information on configuring the DX8000's network settings, refer to DX8000 DVR Online Help or the Operation and Programming manual that came with your unit.

## DATA BACKUP SETUP


The DX8000 Client application allows you to see backup configuration settings but not change them. To configure and perform backups, you must physically log in to a local DX8000 Series DVR as an Administrator or Power User. For more information about configuring a backup schedule, refer to the *Data Backup Setup* section in the DX8000 DVR Operation and Programming manual.

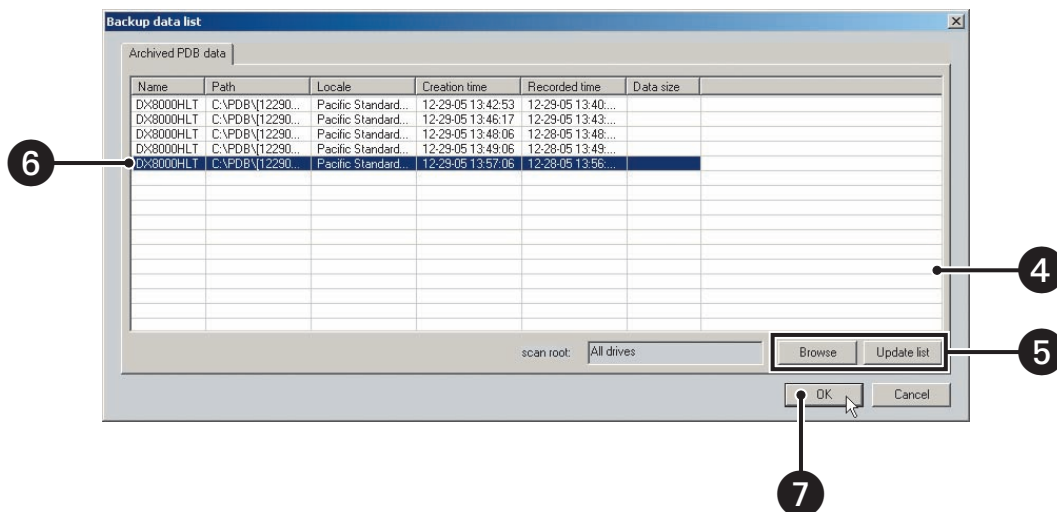
For more information about viewing backed-up video, refer to [Viewing and Searching Backed-Up Video](#) on page 192.

## VIEWING AND SEARCHING BACKED-UP VIDEO

The DX8000 Client application provides Standard Users and higher the ability to view previously backed-up video data. Archived PDB data refers to files stored in the DX8000's native backup format. PDB is used to represent data stored in Pelco's Proprietary Data Base format.

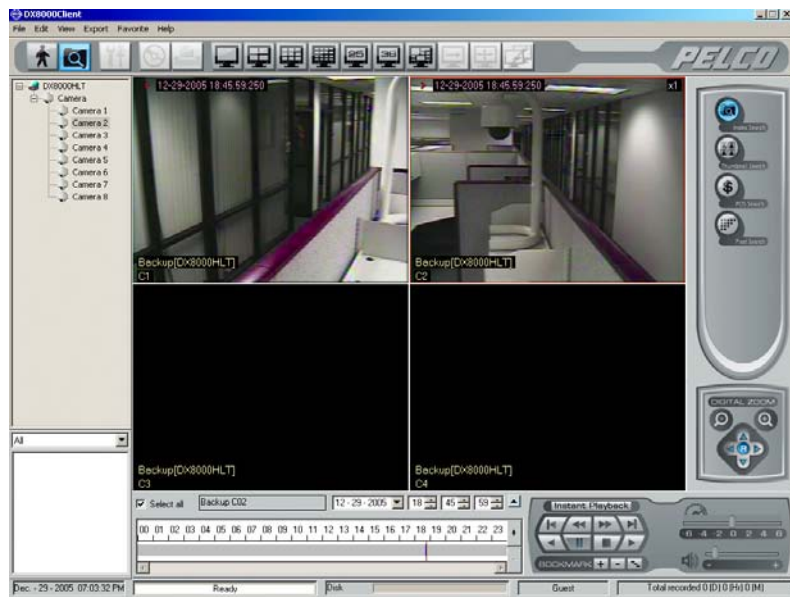
To view back up video data:

1. Ensure that you have the correct backup device connected directly to your client PC. Example devices include
  - CD-ROM/R/RW drives
  - DVD-ROM/R/RW drives
  - External drives
  - Shared network storage
2. Insert the backup media into the device.
3. On the DX8000 toolbar, click .
4. From the DX8000 menu bar, choose File > Backup Search. The backup search screen appears.



**Figure 121.** Backup Search Screen

5. Click "Update list" or "Browse" to search backup storage devices for DX8000 backup files.
6. Select a file from the list to view.
7. Click OK. The backup search screen disappears and the Site tree now displays only the server and cameras that are recorded in the selected backup file.



**Figure 122. Viewing Backed-Up Data**

8. Search and play back the backed-up video just as you would in normal video. Refer to [Index Video Search](#) on page 92, [Thumbnail Video Search](#) on page 94, and [Pixel Video Search](#) on page 107.
9. To exit Backup Search and return to the normal DVR Search mode, go to File > End Backup Search.

## USER SETUP



The User page allows an Administrator (Admin) to add, delete, and change the properties of users. The Admin has full permission of the DX8000. Users are subdivided into groups and each group is granted a particular level of access. The Admin is the only one who can change the permission for all lower-level users. A lower level user cannot have more permission than a higher level user.

This section describes how to configure users and includes the following topics:

- [Built-in User Accounts](#) on page 196
- [Definition of User Access Levels](#) on page 196
- [Definition of Camera Security Access](#) on page 197
- [Adding New Users](#) on page 197
- [Modifying User Properties](#) on page 198
- [Changing User Passwords](#) on page 198
- [Changing a User's Group Affiliation](#) on page 199
- [Deleting Existing Users](#) on page 199
- [Setting Login Timeout](#) on page 199
- [Assigning Automatic Login Permission to a User](#) on page 200

## ACCESSING THE USER PAGE

To access the User page:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The User page is displayed.

The following figure shows the User page.

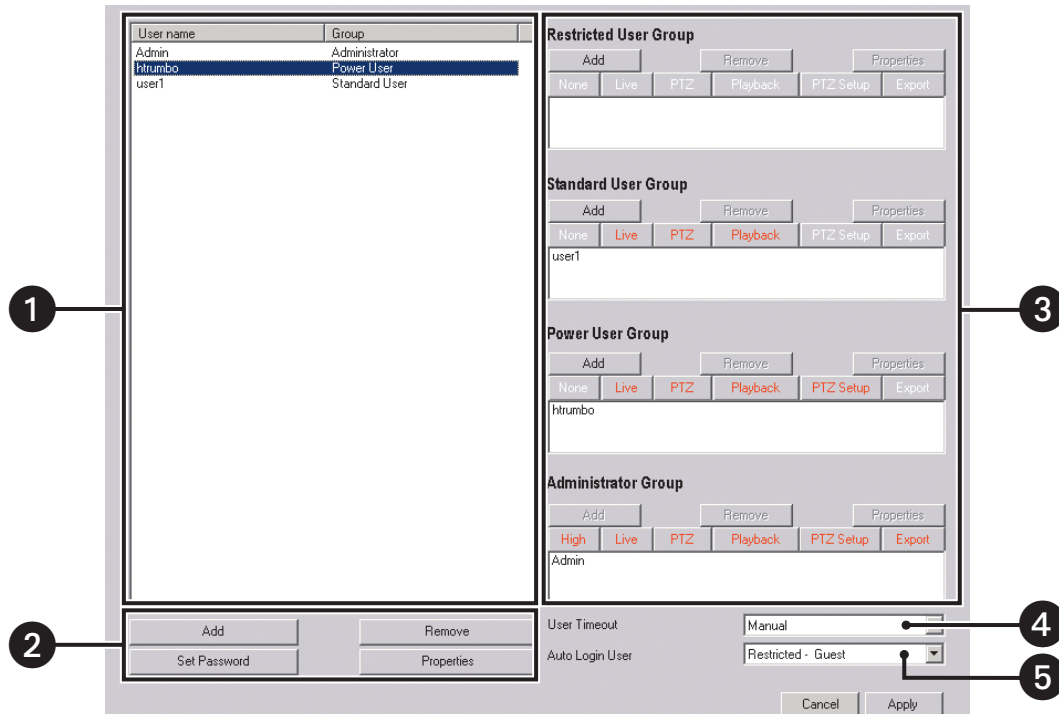


Figure 123. User Page

The following table describes the parts of the User page.

**Table AK.** Parts of the User Page

Item	Part	Description
1	User name table	Lists the authorized users.
2	User buttons	<p>Allows you to do the following:</p> <ul style="list-style-type: none"> <li>• <b>Add:</b> Opens the Add New User dialog box, where you create a new user account.</li> <li>• <b>Remove:</b> Deletes the selected user.</li> <li>• <b>Properties:</b> Opens the Properties dialog box, where you view and modify user details.</li> <li>• <b>Set Password:</b> Opens the Set Password dialog box, where you specify or modify the user's password.</li> </ul>
3	User Groups	<p>Allows you to create user accounts for the following user groups:</p> <ul style="list-style-type: none"> <li>• Administrator Group</li> <li>• Power User Group</li> <li>• Standard User</li> <li>• Restricted User Group</li> </ul> <p>The DX8000 allows the Admin to configure access rights to any user group for the following functions:</p> <ul style="list-style-type: none"> <li>• Camera security</li> <li>• View live video</li> <li>• Operate PTZ</li> <li>• Playback video</li> <li>• Set PTZ</li> <li>• Access Export menu</li> </ul> <p>For more information on the above user groups, refer to <a href="#">Definition of User Access Levels</a> on page 196 and <a href="#">Definition of Camera Security Access</a> on page 197.</p>
4	User Timeout	Allows you to configure the amount of time a user is allowed to remain logged on to the DX8000 system before the system automatically logs them out. The time period is from 5 to 60 minutes (in increments of 5 minutes). The manual setting allows the user to stay logged on to the DX8000 until the user is manually logged off.
5	Auto Login User	Allows you to configure the user to be automatically logged on to the DX8000.

## BUILT-IN USER ACCOUNTS

There are two built-in user accounts that come preconfigured on the DX8000, and they cannot be deleted or changed.

- **Guest:** The Guest account provides limited access to the system. The Guest user can view live video but cannot play back recorded video or access system configuration functions. The Guest account automatically becomes active when the system is first started and each time a user logs out. The Guest user is not a member of any group; however, Guest retains all of the rights and privileges of the Restricted Users group with the exception of the ability to view low security cameras.
- **Admin:** The Admin account has full access to the system. The Admin user can view live and play back video, access all configuration settings, add and modify users, and can perform searches and backups. The Admin user is a member of the Administrators group and cannot be removed.

## DEFINITION OF USER ACCESS LEVELS

There are four predefined user access levels or groups. User access levels range from the Administrator group to the Restricted group. By default, the system starts up with a default Guest account. The Admin can assign automatic login for a specified user. For information about setting up auto login, refer to [Assigning Automatic Login Permission to a User](#) on page 200.

The Guest account has Restricted user access. The following table describes the user group's access rights.

**Table AL.** User Group Access Rights

User Groups	View Live Video	View Recorded Video	Operate PTZ	Search Video	Backup Video	System Setup	Shut Down System	Add/Remove Users	Change User/Group Properties	Exit to Windows
Administrators	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Power Users	✓	✓	✓	✓	✓	✓	✓			
Standard Users	✓	✓	✓	✓						
Restricted Users	✓									
Guest Users	✓									

## DEFINITION OF CAMERA SECURITY ACCESS

Users are limited by the Admin to the cameras they are allowed to view. Access to a camera is determined by its security designation. The Admin can configure access rights to any user group for any of the following functions:

- Camera security
- View live video
- Operate PTZ
- Playback video
- Set PTZ
- Access Export menu

Only users with High Security access can view cameras designated as High Security. Medium Security cameras can be viewed by users with Medium Security access and higher. All users except Guest can view Low Security cameras. All users can view No Security cameras.

The following table summarizes camera security levels and user access.

**Table AM.** Camera Security Levels

Groups	No Security Cameras	Low Security Cameras	Medium Security Cameras	High Security Cameras
Administrators	✓	✓	✓	✓
Power Users	✓	✓	✓	✓
Standard Users	✓	✓	✓	
Restricted Users	✓	✓		
Guest Users	✓			



## ADDING NEW USERS

Administrators can create new user accounts and modify existing users locally on the DX8000 server or remotely from the DX8000 Client Application.

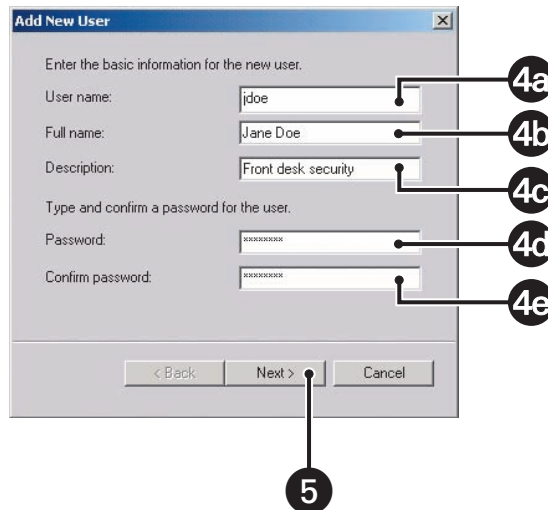
User names and passwords have the following requirements:

- User names can be between 4 and 20 alphanumeric characters in length.
- User passwords can be between 4 and 10 alphanumeric characters in length.
- User names cannot contain spaces and special characters.
- User names and passwords are case sensitive.

To add a new user:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The User page is displayed.
3. Click Add. The Add New User dialog box opens.
4. Do the following:
  - a. Enter a login name for the user.
  - b. Enter the user's full name.
  - c. Enter a brief description for the user. For example, enter **Building 6 Security Guard**.
  - d. Enter a password for the user. (Passwords must be between 4 and 10 characters in length and cannot contain spaces and special characters.)
  - e. Re-enter the same password to confirm its validity.

5. Click Next. The user access level options for the New User dialog box are displayed.
6. Select the user's access level: Restricted, Standard, or Power.
7. Click Finish.
8. Click Apply.





**Figure 124.** Add New User Dialog Box

## MODIFYING USER PROPERTIES

Follow the steps below to change user attributes, such as user name and group affiliation. Users with Administrator or Power User access can change name and description properties of lower-level users. Only Administrator level users, however, can change a user's group affiliation.

To modify a user's properties:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The User page is displayed.
3. Do one of the following:
  - In the main user list:
    - (1) Click a user name.
    - (2) Click Properties. The Property dialog box opens.
  - In one of the group lists:
    - (1) Click a user name.
    - (2) Click Properties. The Property dialog box opens.
4. Edit the following user properties:
  - User name
  - Full name
  - Description
  - Group
5. Click Apply in the Property dialog box.
6. Click Apply in the User Setup screen.

An Administrator level user can also change the group affiliation of users by dragging user names among different groups.

## CHANGING USER PASSWORDS

Administrators and Power Users can change or reset an existing user's password.

To change a user's password:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The User page is displayed.
3. Click a user name in the main user list.
4. Click Set Password. The Set Password dialog box opens.
5. Enter a new password in the "New password" field.
6. Retype the password again in the "Confirm new password" field.
7. Click Apply in the Set Password dialog box.
8. Click Apply in the User Setup screen.

## CHANGING A USER'S GROUP AFFILIATION

An Administrator level user can also change the group affiliation of users by dragging user names among different groups.



To change a user's group affiliation:

- ➔ In the User name column of the User page, click the user's name and drag it in a group.

## DELETING EXISTING USERS

Administrators can delete existing users.



To delete a user's account:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The User page is displayed.
3. Click the user name of the user you want to delete from the main user list.
4. Click Remove. The Remove User dialog box opens.
5. Click Yes to confirm the deletion or No to cancel and return to the User Setup screen.
6. Click the Apply button at the bottom of the screen.

## SETTING LOGIN TIMEOUT

Administrators can define the amount of time a user's account can remain idle before having to log in again. This setting applies to all users, regardless of access level.

To set login timeout:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The User page is displayed.
3. Select a time limit from the User Timeout drop-down box.
  - Time limits range from five minutes to one hour, in five-minute increments.
  - Selecting Manual from the drop-down box will suspend the automatic logout feature. (A user will remain logged in until the user logs out or another user logs in.)
4. Click Apply.





## ASSIGNING AUTOMATIC LOGIN PERMISSION TO A USER

The DX8000 allows one user to be able to automatically log in to the DX8000 application. The administrator must assign automatic login permission to the user. Once automatic login permission is assigned to the user, the user will be automatically logged in to the DX8000 application. In this case, the assigned user does not have to enter the user name and password.

**NOTE:** Automatic login user permission makes the DX8000 more vulnerable because a higher level of user is logged in every time.

To assign automatic login permission:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The User page is displayed.
3. In the Auto Login User drop-down selection box, select a user.
4. Click Apply.

The next time the DX8000 application is started, the assigned user is logged in automatically.

## SITE SETUP

The DX8000 Client application does not allow you to access the Site page to configure remote sites. You must physically log in to the local DX8000 Series DVR as an Administrator or Power User to configure remote sites. For more information on configuring remote sites, refer to the DX8000 DVR server online Help or Operation and Programming manual that came with your unit.

## SYSTEM SETUP



Many of the options presented in the System page cannot be configured from the DX8000 Client application. Administrators and Power Users are allowed to import and export system configuration files and to view and export system logs. To modify other system setup options, you must physically log in to the local DX8000 Series DVR as an Administrator or Power User. For more information, refer to the DX8000 DVR online Help or Operation and Programming manual that came with your unit.

This section describes how to configure system options and parameters and includes the following topics:

- [Accessing the System Page](#) on page 205
- [Working with the Export Feature](#) on page 205
- [Working with the Import Feature](#) on page 207
- [Using System Logs](#) on page 208

### ACCESSING THE SYSTEM PAGE

To access the System page:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The System page is displayed.

### WORKING WITH THE EXPORT FEATURE



The DX8000 provides an import and export feature that allows you to save and reload DX8000 configuration settings. You can save your DX8000 DVR configuration settings by exporting them to a specific storage media and location. You can reload a specific configurations profile by importing its configuration file.

This sections describes how to use the import and export feature and includes the following topics:

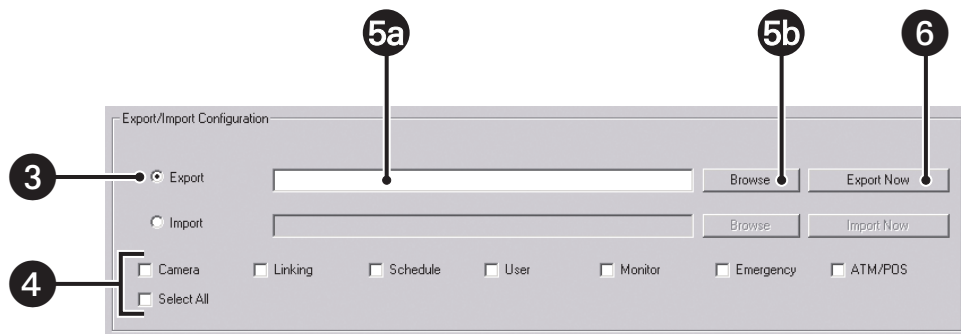
- [Exporting Current DVR Settings](#) on page 205
- [Using the Edit Menu to Perform an Export](#) on page 206

#### Exporting Current DVR Settings

To save current DVR configuration settings:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The System page is displayed.
3. Select the Export radio button.
4. Select the check boxes of each configuration item you want to back up, or click Select All to export all settings.

5. Do one of the following:
  - a. To specify the file name to export to, enter drive, path and file name information into the text box. Settings file names follow standard Windows file-naming conventions. For example, enter **C:\DX8000\Jan\_2004\_config.bak**.
  - or
  - b. To browse for a location:
    - (1) Click Browse.
    - The DX8000 Setup File Export Dialog box opens.
    - (2) Enter a file name in the "File name" text box.
    - (3) Navigate to the drive and folder where you want to save the settings file.
    - (4) Click the Up button to move up a level in the folder hierarchy.
    - (5) Click Save.
6. Click Export Now.



**Figure 125.** Exporting DVR Settings

### Using the Edit Menu to Perform an Export

To save current DVR settings:

1. From the DX8000 menu bar, choose Edit > Export Setup.  
The DX8000 Setup File Export Dialog box opens.
2. Select the folder where you want to save the settings file.
3. Click the Up button to move up a level in the folder hierarchy.
4. Enter a file name in the space provided.
5. Click Save.



## WORKING WITH THE IMPORT FEATURE

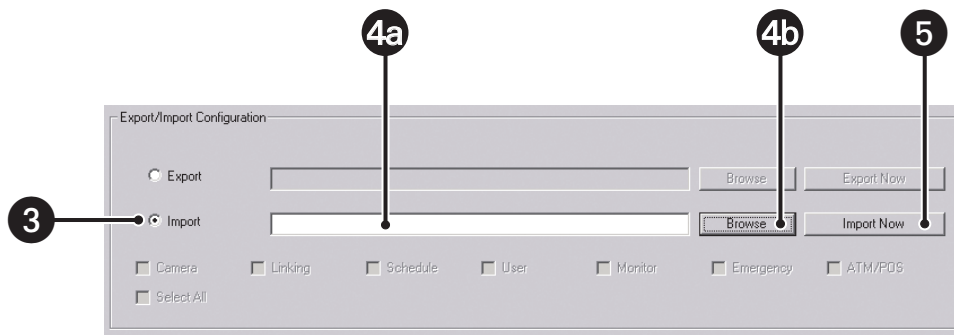
This sections describes how to import DX8000 DVR settings and includes the following topics:

- [Importing DVR Settings](#) on page 207
- [Using the Edit Menu to Perform an Import](#) on page 208

### Importing DVR Settings

To import a saved settings file:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The System page is displayed.
3. Select the Import radio button.
4. Do one of the following:
  - a. To specify the file name to import, enter the drive, path, and file name information in the text box. Settings file names follow standard Windows file-naming conventions. For example, enter **C:\System Settings Backup.bak**.
  - or
  - b. To browse for a location:
    - (1) Click Browse. The DX8000 Setup File Export Dialog box opens.
    - (2) Navigate to the drive and folder where the settings file is located.
    - (3) Click the Up button to move up a level in the folder hierarchy.
    - (4) Select the settings file you want to open.
    - (5) Click Open.
5. Click Import Now.
6. Click Apply.



**Figure 126.** Import DX8000Configuration

### Using the Edit Menu to Perform an Import

To import a settings file from a specific drive or folder:

1. From the DX8000 menu bar, choose Edit > Import Setup.  
The DX8000 Setup File Import Dialog box opens.
2. Select the folder where the file resides that you want to import.
3. Click the Up button to move up a level in the folder hierarchy.
4. Click the settings file you want to open.
5. Click Open.

## USING SYSTEM LOGS



The DX8000 automatically stores system information in a number of log files. Users with Power User access and higher can use these files to track system statistics and monitor security. The DX8000 allows you to view DX8000 activity log files.

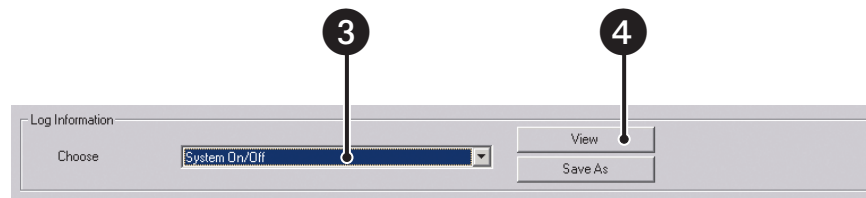
This section describes how to use the system logs and includes the following topics:

- [Viewing a Log File](#) on page 208
- [Exporting Log Information](#) on page 211

### Viewing a Log File

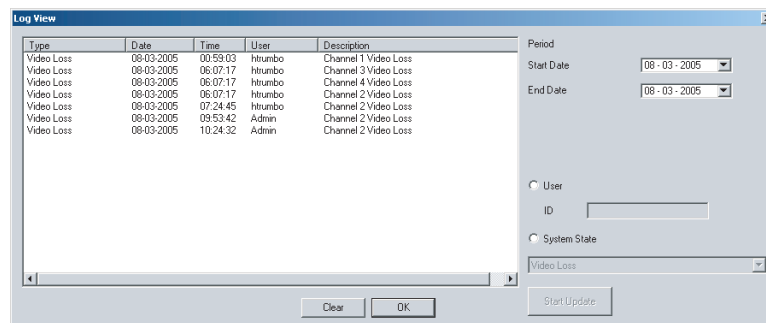
To view a log file:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The System page is displayed.
3. In the Log Information section, select a log file from the Choose drop-down box.
4. Click View. The Log View dialog box opens.



**Figure 127.** Viewing a Log File



The following figure shows the Log View dialog box.



**Figure 128.** Log View Dialog Box

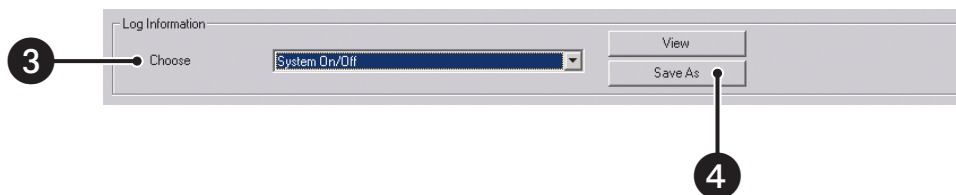
## Exporting Log Information

To export a system log file:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The System page is displayed.
3. In the Choose drop-down box, select a log file.
4. Click Save As.
5. Select the drive and folder where you want to store the log file.
6. Enter a filename for the log information in the space provided.

Log filenames follow standard Windows file-naming conventions. Alternatively, you can view log files by clicking View > Log and then selecting the desired log file. Log files can be opened and printed using a text editing program, such as Windows Notepad.

7. Click Save.



**Figure 129.** Exporting a Log File

## EXTERNAL MONITOR SETUP

The external monitor settings of a remote DVR cannot be changed from the DX8000 Client application. To change a DVR's analog monitor configuration, you must physically log in to a local DX8000 Series DVR as an Administrator or Power User. For more information on configuring the DX8000's optional analog monitor outputs, refer to the DX8000 DVR online Help or Operation and Programming manual that came with your unit.

## EMERGENCY NOTIFICATION SETUP

The Emergency Agent Notification alerts selected clients of motion, alarm and video loss events detected by DX8000 server sites. When a motion, alarm or video loss event is triggered, a pop-up window opens on the monitor of the remote site client. The window displays one or more still images taken during the event.

Users with Power User access and higher can configure the emergency agent notification system. The first step in the setup process requires that clients be added to the emergency agent notification list. To complete this step, you must provide a valid name and the IP address of each client PC. After clients have been added they can be linked to one or more cameras. Finally, the amount of time a server sends images after an event occurs and the interval between sending each image must be set.



**NOTE:** Before configuring the Emergency Agent Notification, make sure the Emergency Agent Client utility is installed on one or more client PCs. For information on installing the Emergency Agent Client utility, refer to *Installing the Client Emergency Agent Application* in this manual.

This section describes how to setup emergency notification and includes the following topics:

- [Accessing the Emergency Agent Notification Setup](#) on page 222
- [Adding Client Emergency Agents to be Notified](#) on page 222
- [Changing Client Emergency Agent Properties](#) on page 223
- [Deleting Clients from the Notification List](#) on page 223
- [Linking Cameras to Client Emergency Agents](#) on page 223
- [Setting Server Event Transmission Time](#) on page 224

## ACCESSING THE EMERGENCY AGENT NOTIFICATION SETUP



To access the Emergency Agent Notification setup:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.

## ADDING CLIENT EMERGENCY AGENTS TO BE NOTIFIED

After clients have been added, cameras must be configured to notify individual clients of an event. A single camera can be linked to one or more client emergency agents. For information on linking cameras to client emergency agents, refer to [Linking Cameras to Client Emergency Agents](#) on page 223.

To add clients to the Emergency Agent Notification list:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click Add. The Agent Setup dialog box opens.
4. Do the following:
  - a. Enter a name for the client. (Client names can be up to 63 characters and can include spaces, but not special characters.)
  - b. Enter the client's IP address.
  - c. If necessary, enter a port number in the Agent Port text box. (The default port number is 9004.)

Unless there is a conflict on your network, you should not change the Emergency Agent port number from its default of 9004. Make sure any changes to port numbers are made consistently across all DX8000 servers and clients on a network. Client and server ports must be identical.

5. Click OK.
6. Click the Apply button at the bottom of the screen.



## CHANGING CLIENT EMERGENCY AGENT PROPERTIES

To change an existing client's information in the emergency notification list:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Do the following:
  - a. In the Emergency Agent Setup section, select a client from the list.
  - b. Click Edit. The Agent Setup dialog box opens.
  - c. Enter a new name for the client. (Client names can be up to 63 characters long and can include spaces, but not special characters.)
  - d. Enter a new IP address for the client.
  - e. If necessary, enter a port number in the Agent Port text box. (The default port number is 9004.)  
  
Unless there is a conflict on your network, you should not change the Emergency Agent port number from its default of 9004. Make sure any changes to port numbers are made consistently across all DX8000 servers and clients on a network. Client and server ports must be identical.
4. Click OK.
5. Click the Apply button at the bottom of the screen.

## DELETING CLIENTS FROM THE NOTIFICATION LIST

To delete a client from the emergency notification list:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Do the following:
  - a. In the Emergency Agent Setup section, select a client from the list.
  - b. Click Delete. The selected client is deleted.
4. Click Apply.

## LINKING CAMERAS TO CLIENT EMERGENCY AGENTS

After clients have been added, cameras must be configured to notify individual clients of an event. A single camera can be linked to one or more client emergency agents.

Up to 32 IP addresses can be assigned to each camera. The DX8000 can transmit images up to 10 IP addresses simultaneously.

To link a camera to one or more clients:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. In the Camera Setup section, click a camera button (Camera 1 to Camera 16). The Emergency Agent Selection dialog box opens.
4. Click the check box to select the name of the client site you want to notify when a motion, alarm, or video loss event is detected by this camera.
5. Repeat steps 1 and 2 for up to sixteen cameras on the current site.
6. Click the Apply button at the bottom of the screen.





7. Configure the server event transmission time. For information on setting the duration and transmission interval, refer to [Setting Server Event Transmission Time](#) on page 224.

## SETTING SERVER EVENT TRANSMISSION TIME

After clients have been added and linked to cameras, you must set the amount of time a server sends images after an event occurs and the interval between sending each image. Set the duration for sending images and the transmission interval after clients have been added and cameras are linked to one or more clients. For information on adding clients, refer to [Adding Client Emergency Agents to be Notified](#) on page 222. For information on linking cameras, refer to [Linking Cameras to Client Emergency Agents](#) on page 223.

To set the duration for sending images and the transmission interval:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. In the Option section of the Emergency Agent page, enter the amount of time in seconds that you want the DX8000 to continue sending still images after an alarm, motion, or video loss event has been detected.
4. Enter the time interval in seconds that you want the DX8000 to wait between sending each still image.
5. Click Apply.

## EMERGENCY E-MAIL NOTIFICATION SETUP

The DX8000 can be configured to send e-mail notifications alerting users of motion, alarm, and video loss events. Users with Power User access and higher can configure e-mail notification. Notifications can be sent to a single e-mail address or a group of addresses either immediately after an event occurs or periodically according to a predefined schedule. You can configure up to 32 e-mail groups. Up to 32 members can be assigned to each e-mail group.

Before sending notifications, you must provide information about your e-mail server and establish what events—motion, alarm, and video loss—that you want to include in the e-mail message. Timing and frequency of the e-mail notifications must also be set. You should test the e-mail notification function immediately after configuration to ensure your system is set up correctly.

### NOTES:



- To use emergency e-mail notification, the DX8000 Series DVR must be connected to a local area network (LAN) that maintains an SMTP mail server. The network must also be connected to either an intranet or the Internet depending on the location of the e-mail accounts to which you want to send notifications. Consult your network administrator for information on configuring e-mail notification on your local network.
- DX8000 version 2.0 does not support Google Gmail.

This section describes how to set up emergency e-mail notification and includes the following topics:

- [Accessing the Emergency Agent Notification Setup](#) on page 222
- [Configuring Emergency E-Mail Notification](#) on page 225
- [Setting Up the Time Period](#) on page 228
- [Sending E-Mail Notifications](#) on page 234

## ACCESSING THE EMERGENCY E-MAIL NOTIFICATION SETUP

To access the emergency e-mail notification setup:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.



## CONFIGURING EMERGENCY E-MAIL NOTIFICATION

This section describes how to set up emergency e-mail notification and includes the following topics:

- [Enabling or Disabling E-Mail Notification](#) on page 225
- [Setting Up the E-Mail Server](#) on page 226
- [Testing E-Mail Notification](#) on page 227

### Enabling or Disabling E-Mail Notification



To enable or disable emergency e-mail notification:

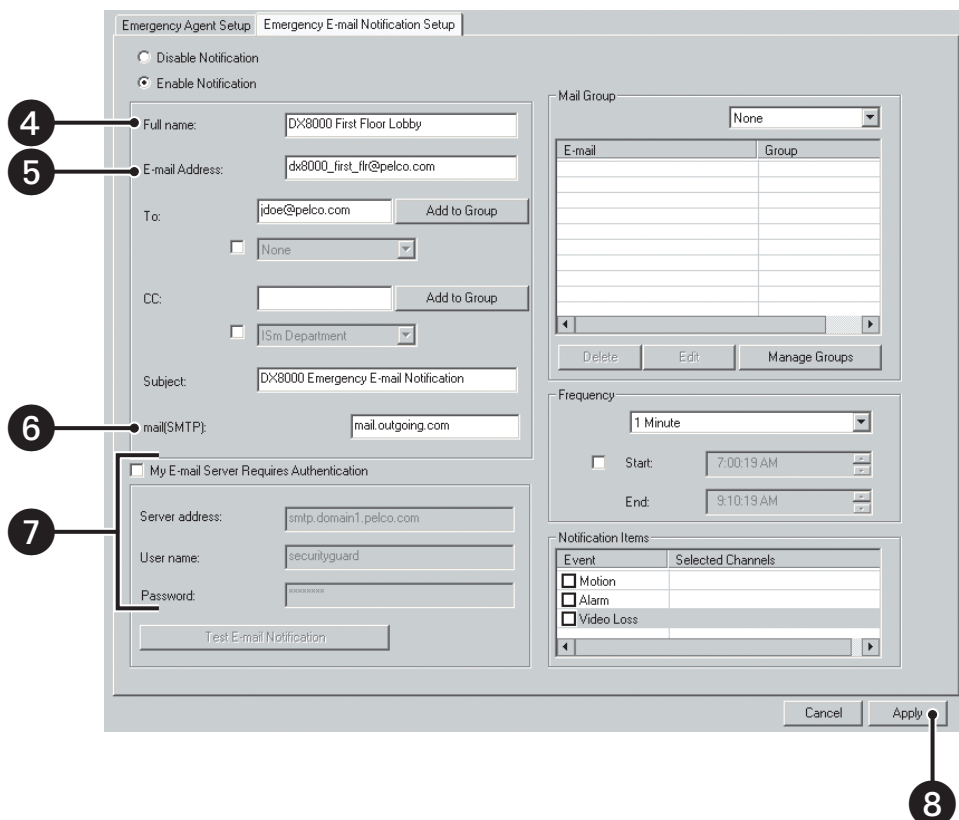
1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Emergency E-mail Notification page, do one of the following:
  - Click the Enable Notification radio button to enable e-mail notification.
  - Click the Disable Notification radio button to disable e-mail notification.

## Setting Up the E-Mail Server

Set up the e-mail server in the Emergency E-Mail Notification page. For information on accessing the Emergency E-Mail Notification page, refer [Accessing the Emergency E-Mail Notification Setup](#) on page 225.

To set up the e-mail server:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. Enter a name in the Full Name text box. You should enter a name that reflects the DX8000 server sending the notification; for example, **DX8000 First Floor Lobby**. Names can be up to 31 characters long and can include spaces but not special characters.
5. Enter your e-mail address in the E-mail Address text box.
6. Enter the address of your local SMTP mail server. Obtain this information from your network administrator.
7. If your e-mail server requires you to log in, do the following:
  - a. Select the check box labeled My E-mail Server Requires Authentication.
  - b. Enter your e-mail server address.
  - c. Enter your user name. (User names can be up to 31 characters in length and cannot include spaces or special characters.)
  - d. Enter your password. (Passwords can be up to 19 characters in length and cannot include spaces or special characters.)
8. Click Apply.





Event	Selected Channels
<input type="checkbox"/> Motion	
<input type="checkbox"/> Alarm	
<input type="checkbox"/> Video Loss	

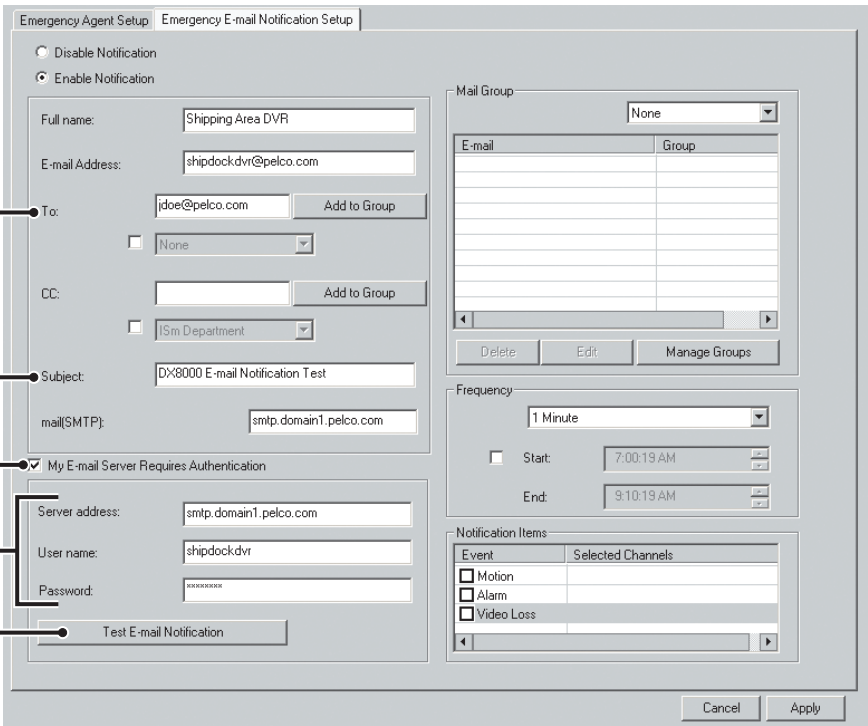
**Figure 130.** Basic E-Mail Notification Setup

## Testing E-Mail Notification

You test the e-mail notification configuration in the Emergency E-Mail Notification page. For information on accessing the Emergency E-Mail Notification page, refer [Accessing the Emergency E-Mail Notification Setup](#) on page 225.

To test e-mail notification:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. Select the My E-mail Server Requires Authentication check box if it is not already selected.
5. Enter your personal e-mail address or the address of someone who can verify the receipt of the test e-mail in the To text box.
6. Enter **DX8000 E-mail Notification Test** in the Subject text box.
7. Enter the following server settings if necessary:
  - Server address (This address should be the same as the SMTP server address you entered above.)
  - User name
  - Password
8. Click Test E-mail Notification.



The screenshot shows the 'Emergency E-mail Notification Setup' dialog box. It has two tabs: 'Emergency Agent Setup' and 'Emergency E-mail Notification Setup'. The 'Emergency E-mail Notification Setup' tab is active. It contains several sections:

- Notification Settings:** Radio buttons for 'Disable Notification' and 'Enable Notification'. 'Enable Notification' is selected.
- Recipient Information:** Fields for 'Full name' (Shipping Area DVR), 'E-mail Address' (shipdockdvr@pelco.com), 'To:' (jdoe@pelco.com), and 'CC:'. There are 'Add to Group' buttons and dropdown menus for 'None' and 'ISm Department'.
- Subject:** A text box containing 'DX8000 E-mail Notification Test'.
- SMTP Settings:** A text box for 'mail(SMTP):' containing 'smtp.domain1.pelco.com'.
- Authentication:** A checked checkbox labeled 'My E-mail Server Requires Authentication'.
- Server Settings:** Fields for 'Server address:' (smtp.domain1.pelco.com), 'User name:' (shipdockdvr), and 'Password:' (masked).
- Frequency:** A dropdown menu set to '1 Minute', and 'Start' (7:00:19 AM) and 'End' (9:10:19 AM) time fields.
- Mail Group:** A table with 'E-mail' and 'Group' columns, and buttons for 'Delete', 'Edit', and 'Manage Groups'.
- Notification Items:** A table with 'Event' and 'Selected Channels' columns. Events listed are 'Motion', 'Alarm', and 'Video Loss', each with a checkbox.
- Buttons:** 'Cancel' and 'Apply' at the bottom right, and a 'Test E-mail Notification' button at the bottom left.

Numbered callouts point to the following elements:

- 5: 'To:' text box
- 6: Subject text box
- 4: 'My E-mail Server Requires Authentication' checkbox
- 7: 'Server address:', 'User name:', and 'Password:' fields
- 8: 'Test E-mail Notification' button

Figure 131. E-Mail Test

## SETTING UP THE TIME PERIOD



The DX8000 can be configured to send e-mail notifications on a periodic basis, such as once every ten minutes. This section describes how to set up the time period and includes the following topics:

- [Configuring E-Mail Notification Frequency](#) on page 228
- [Setting the Time of Day](#) on page 228
- [Sending E-Mail Notifications In Response to Motion Events](#) on page 229
- [Sending E-Mail Notifications In Response to Alarm Events](#) on page 229
- [Sending E-Mail Notifications In Response to Video Loss Events](#) on page 230

### Configuring E-Mail Notification Frequency



Depending on the volume of motion, alarm, or video loss events that are detected by the DX8000, the number of e-mail notifications can be far too many to manage effectively. To keep the number of e-mails sent by the DX8000 at a manageable level, the e-mail notification frequency can be adjusted. When events have been detected, e-mail notifications can be sent out in intervals from once per minute up to once every six hours. If no events have been detected during the specified frequency interval, no notification will be sent. Each e-mail notification will include information about the first event detected during the interval, the last event detected during the interval, and a still image (in JPEG format) of the last event.

To configure notification frequency:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Frequency section, select the frequency interval from the drop-down box. Options are sending an e-mail notification once every
  - 1 minute
  - 10 minutes
  - 30 minutes
  - 1 hour
  - 3 hours
  - 6 hours

### Setting the Time of Day



To set the time of day during which e-mail notifications will be sent:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Frequency section, do the following:
  - a. Click the Start check box to use the spinner buttons or type the earliest time of day you want e-mail notifications to be sent (for example, 7:30 AM).
  - b. Click the End check box to use the spinner buttons or type the latest time of day you want e-mail notifications to be sent (for example, 6:00 PM).
5. Click Apply.

## **Sending E-Mail Notifications In Response to Motion Events**

E-mail notifications can be sent whenever a camera attached to a DX8000 detects motion.



To cause e-mail notifications to be sent in response to motion events:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is display.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Notification Items section, do the following:
  - a. Click the Motion check box.
  - b. Click once in the Selected Channels field to the right of the word Motion. The Selected Channels dialog box opens.
  - c. Do one of the following:
    - Click the check box of each channel you want to monitor for motion detection events.
    - Click Select All to monitor all channels for motion detection.
    - Click Deselect All to deselect all channels.
5. Click OK.
6. Click Apply.

## **Sending E-Mail Notifications In Response to Alarm Events**

E-mail notifications can be sent whenever an alarm input is activated.



To cause e-mail notifications to be sent in response to whenever an alarm input is activated:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is display.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Notification Items section, do the following:
  - a. Click the Alarm check box.
  - b. Click once in the Selected Channels field to the right of the word Alarm. The Selected Channels dialog box opens.
  - c. Do one of the following:
    - Click the check box of each channel you want to monitor for alarm detection events.
    - Click Select All to monitor all channels for alarm detection.
    - Click Deselect All to deselect all channels.
5. Click OK.
6. Click Apply.

## **Sending E-Mail Notifications In Response to Video Loss Events**

E-mail notifications can be sent whenever a camera attached to a DX8000 experiences a video loss event.

To cause e-mail notifications to be sent in response to video loss events:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is display.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Notification Items section, do the following:
  - a. Click the Video Loss check box.
  - b. Click once in the Selected Channels field to the right of the words Video Loss. The Selected Channels dialog box opens.
  - c. Do one of the following:
    - Click the check box of each channel you want to monitor for video loss detection events.
    - Click Select All to monitor all channels for video loss detection.
    - Click Deselect All to deselect all channels.
5. Click OK.
6. Click Apply.

## **SETTING UP E-MAIL NOTIFICATION GROUPS**

The DX8000 allows you to set up groups, to send an emergency notification to multiple users. The DX8000 supports the following:



- You can create up to 32 e-mail notification groups.
- Up to 32 members can be assigned to each e-mail group.
- A group can be notified in response to an alarm or motion detection event.

This section describes how to set up e-mail notification groups and includes the following topics:

- [Adding an E-Mail Notification Group](#) on page 230
- [Modifying an E-Mail Group Name](#) on page 231
- [Deleting an E-Mail Group](#) on page 231
- [Adding Members to an E-Mail Group](#) on page 231
- [Deleting Members from an E-Mail Group](#) on page 232
- [Modifying E-Mail Group Member Attributes](#) on page 233



### **Adding an E-Mail Notification Group**

To add an e-mail notification group:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Mail Group area, do the following:
  - a. Click Manage Groups. The Group Management dialog box opens.
  - b. Click Add Group. The Manage Groups dialog box opens.
  - c. Enter the name of the group. (Group names can be up to 32 characters in length and can include spaces but not special characters.)
5. Click OK.
6. Click Close.
7. Click Apply.



## **Modifying an E-Mail Group Name**

To modify a group name:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Mail Group area, do the following:
  - a. Click Manage Groups. The Group Management dialog box opens.
  - b. In the Group Name table, select a group.
  - c. Click Edit Group. The Manage Groups dialog box opens.
  - d. Edit the existing name or enter a new name for the group.
5. Click OK.
6. Click Close.
7. Click Apply.

## **Deleting an E-Mail Group**



To delete a group:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. In the Mail Group area, do the following:
  - a. Click Manage Groups. The Group Management dialog box opens.
  - b. In the Group Name table, select a group.
  - c. Click Delete.
5. Click Close.
6. Click Apply.

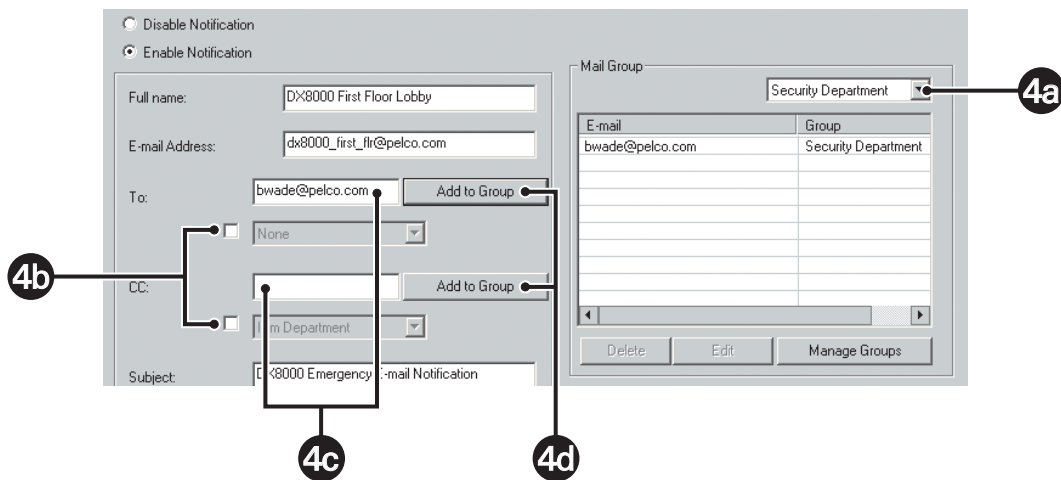
## **Adding Members to an E-Mail Group**

Up to 32 members can be assigned to each e-mail group.

To add e-mail addresses to a group:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. Do the following:
  - a. In the Mail Group section, select a group name from the drop-down box.
  - b. Ensure that the group check boxes under To and CC are unchecked.
  - c. Enter an e-mail address in the To or CC text boxes.
  - d. Click Add to Group.
5. Click Apply.





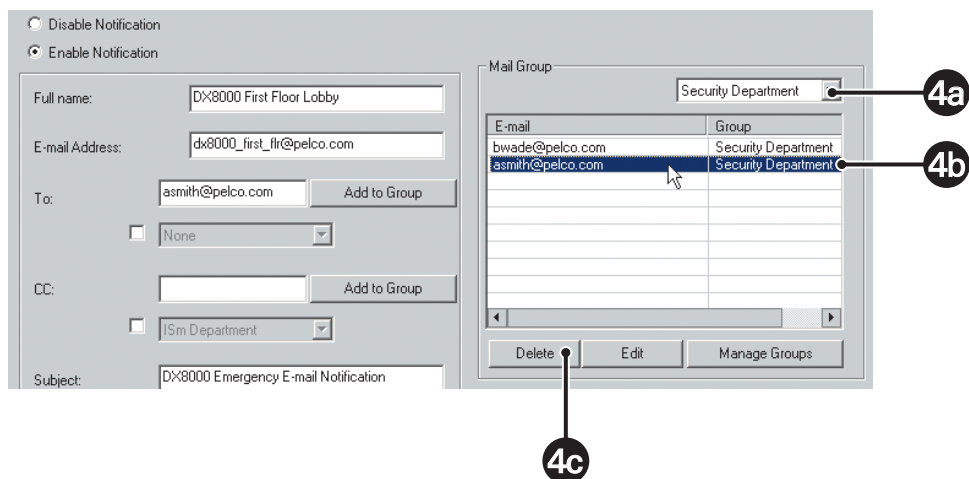


**Figure 132. Add User to E-Mail Group**

### **Deleting Members from an E-Mail Group**

To delete a user from a group:



1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. Do the following:
  - a. In the Mail Group section, select a group name from the drop-down box.
  - b. Select the user you want to delete from the list.
  - c. Click Delete.
5. Click Apply.

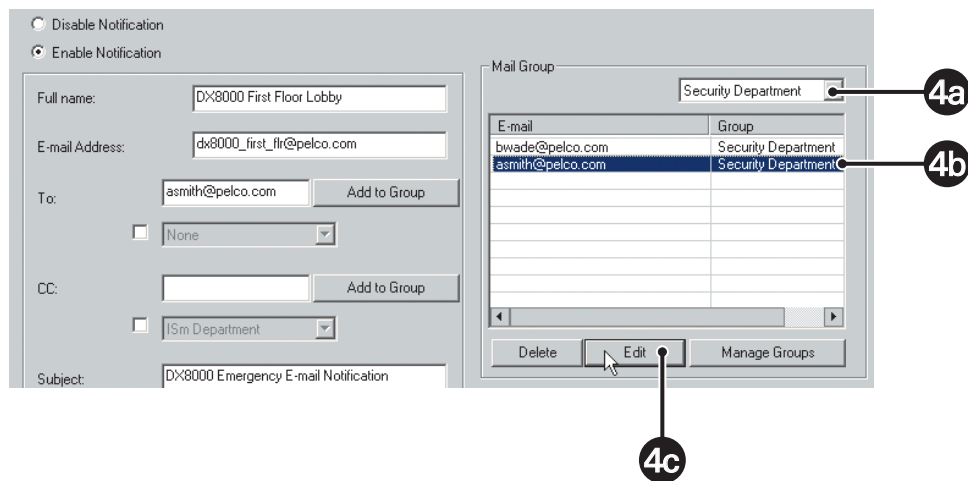


**Figure 133. Remove User from E-mail Group**

## Modifying E-Mail Group Member Attributes

To modify a user's e-mail address or group affiliation:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. Do the following:
  - a. In the Mail Group section, select a group name from the drop-down box.
  - b. Click the e-mail address of the user you want to edit.
  - c. Click Edit. The E-mail Settings dialog box opens.
  - d. In the Group drop-down box, select a different group for the user.
  - e. If necessary, enter a new e-mail address for the user in the E-mail Address text box.
5. Click OK.
6. Click Apply.



**Figure 134.** Modify Member Attributes



## SENDING E-MAIL NOTIFICATIONS

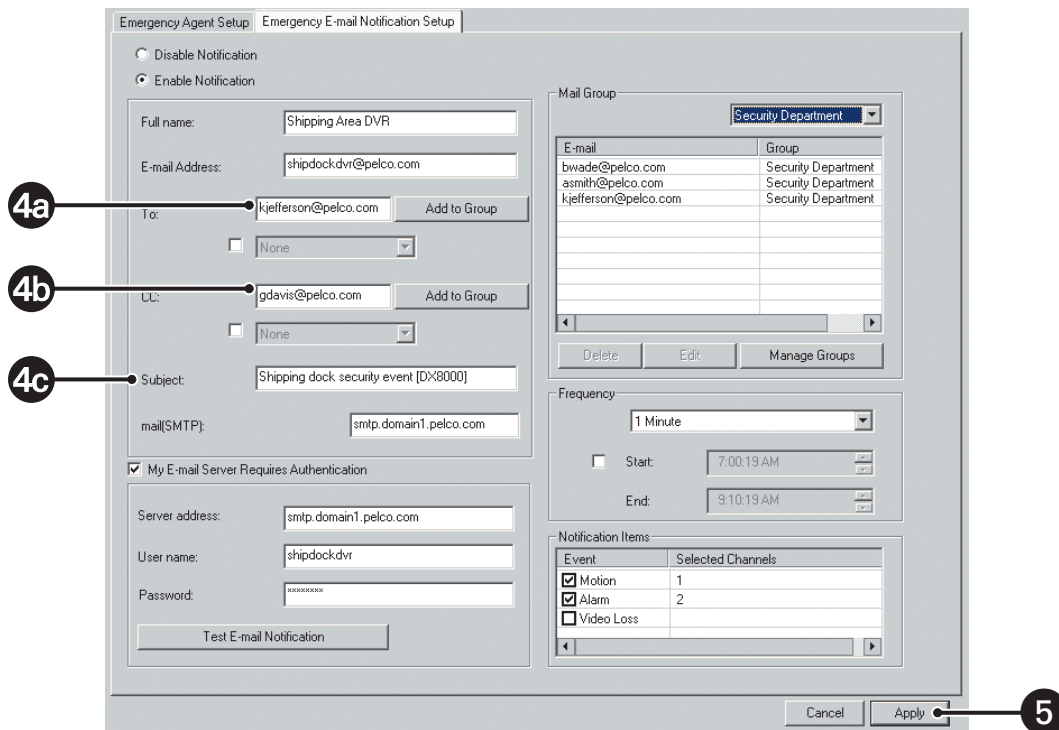
This section describes how to send e-mail notifications and includes the following topics:

- [Sending E-Mail Notifications to Individuals](#) on page 234
- [Sending E-Mail Notifications to Groups](#) on page 235

### Sending E-Mail Notifications to Individuals

To configure e-mail notification to send alerts to an individual:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. Do the following:
  - a. Enter the e-mail address of the individual to whom you would like to send e-mail notifications in the To text box.
  - b. Enter an optional e-mail address of a second person you would like to send a copy of the notification to in the CC text box.
  - c. Enter text for the subject line that will appear in the e-mail notification in the Subject text box. (The default subject line is DX8000 Emergency Email Notification).
5. Click Apply.



Emergency Agent Setup | Emergency E-mail Notification Setup

☐ Disable Notification  
☒ Enable Notification

Full name: Shipping Area DVR

E-mail Address: shipdockdvr@pelco.com

To: kjefferson@pelco.com Add to Group

☐ None

CC: gdavis@pelco.com Add to Group

☐ None

Subject: Shipping dock security event [DX8000]

mail(SMTP): smtp.domain1.pelco.com

☒ My E-mail Server Requires Authentication

Server address: smtp.domain1.pelco.com

User name: shipdockdvr

Password: [password]

Test E-mail Notification

Mail Group: Security Department

E-mail	Group
bwade@pelco.com	Security Department
asmith@pelco.com	Security Department
kjefferson@pelco.com	Security Department

Delete Edit Manage Groups

Frequency: 1 Minute

☐ Start: 7:00:19 AM

End: 9:10:19 AM

Notification Items:



Event	Selected Channels
<input checked="" type="checkbox"/> Motion	1
<input checked="" type="checkbox"/> Alarm	2
<input type="checkbox"/> Video Loss	

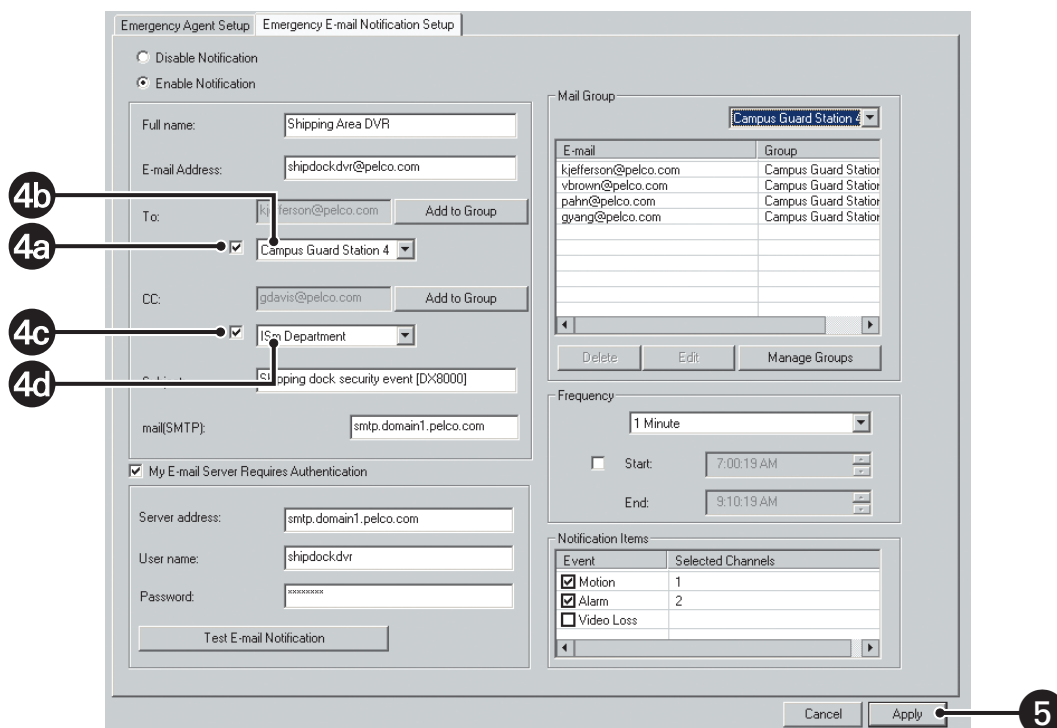
Cancel Apply

**Figure 135.** Sending E-Mails to Individuals

## Sending E-Mail Notifications to Groups

To configure e-mail notification to send e-mail alerts to a group of individuals:

1. On the DX8000 toolbar, click . The Setup dialog box opens to the Camera page.
2. Click . The Notification page is displayed.
3. Click the Emergency E-mail Notification Setup tab.
4. Do the following:
  - a. Click the To check box under To.
  - b. In the drop-down box, select the group to which you want to send event notifications.
  - c. (Optional) If you want to e-mail a copy of the event notification to another group of users, click the CC: check box under CC.
  - d. In the drop-down box, select the group you want to copy.
5. Click Apply.



**Figure 136.** Sending E-Mails to Groups

# DX8000 Client Emergency Agent

Welcome to the DX8000 Client Emergency Agent application. The DX8000 Client Emergency Agent works with networked DVRs to alert users when one or more particular channels detect a motion, alarm, or video loss event. The Emergency Agent runs on a networked client PC.

This section describes how to install, set up, and use the DX8000 Client Emergency Agent and includes the following topics:

- [Setting Up and Using the Client Emergency Agent](#) on page 240
- [Recommended System Requirements](#) on page 240
- [Installing the Client Emergency Agent Application](#) on page 241
- [Enabling IPSec Security Services](#) on page 243
- [Disabling IPSec Security Services](#) on page 243

## Setting Up and Using the Client Emergency Agent

---

The following steps must be completed in sequence before the Emergency Agent can receive event notifications:

1. You must install the Client Emergency Agent software on your client PC before you can use it. Refer to the installation manual for instructions on installing the Client Emergency Agent utility.
2. The DX8000 server must be turned on and operating.
3. Both the DX8000 server and client must be connected to the same network.
4. The Emergency Agent Notification system must be operating on the DX8000 server.
5. The client PC must be listed in the emergency agent notification list of the DX8000 server, and at least one camera must be linked to the client. For more information, refer to [Emergency Notification Setup](#) on page 222.
6. The Client Emergency Agent must be configured and activated on the client PC.

## RECOMMENDED SYSTEM REQUIREMENTS

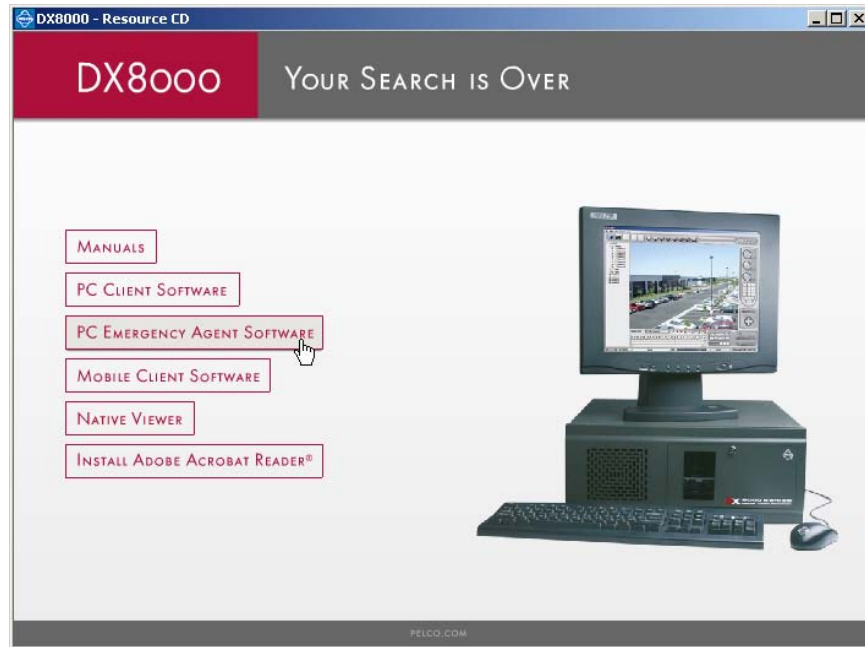
The DX8000 Emergency Agent recommended minimum system requirements include the following:

- Processor: Intel® Pentium® III, or Pentium 4 with 800 MHz minimum processor speed
- Memory: 128 MB of RAM
- Video: AGP VGA card with minimum of 64 MB of video RAM, 1024 x 768 display resolution, 32-bit color, and DirectX® 8.1 or later hardware acceleration
- 2.5 MB of free disk space for the full application and additional space to store images
- Monitor: SVGA or XGA with 1024 x 768 resolution, 32-bit color
- Operating system: Windows® 2000 (SP4) or Windows XP only

## INSTALLING THE CLIENT EMERGENCY AGENT APPLICATION

To install the Client Emergency Agent application:

1. Start the Windows operating system.
2. Close all programs, including any antivirus software.
3. Insert the DX8000 Resource CD into the CD-ROM drive of your PC and wait for the DX8000 Resource CD screen to appear.



**Figure 137.** Resource CD Screen: Emergency Agent Installation Option

4. Click PC Emergency Agent Software to install the Client Emergency Agent application. The DX8000 Security Setup dialog box appears.

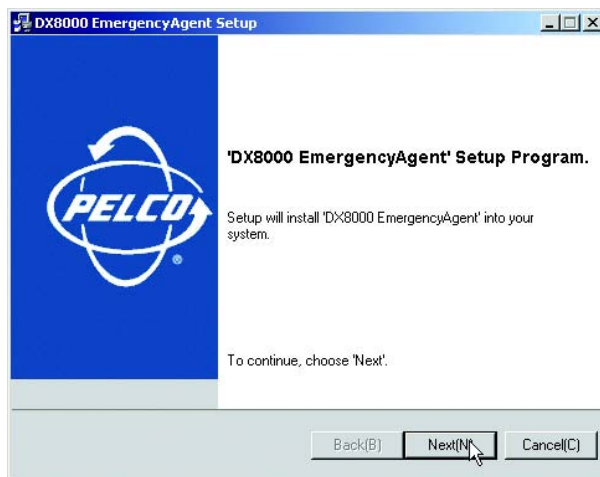


**Figure 138.** DX8000 Security Setup Dialog Box

5. Verify that the "Install IPSec Configurations" check box is selected.

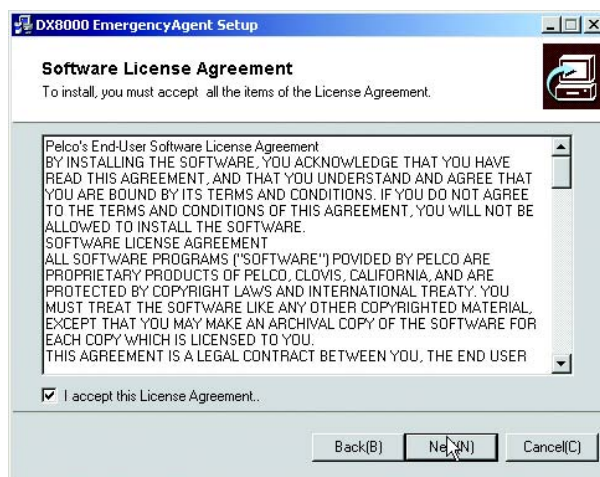
**NOTE:** IPSec is a standard security protocol used by the DX8000 Series DVR and its clients to communicate safely over a network. Although IPSec security can be disabled at any time, it must be enabled in order to communicate with a DX8000 server.

6. Click Next. The DX8000 Emergency Agent Setup dialog box appears.



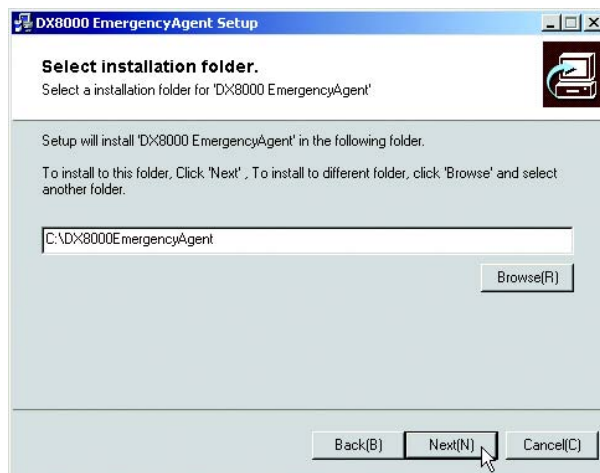
**Figure 139.** DX8000 Emergency Agent Setup Dialog Box

7. Click Next. The Software License Agreement dialog box appears.



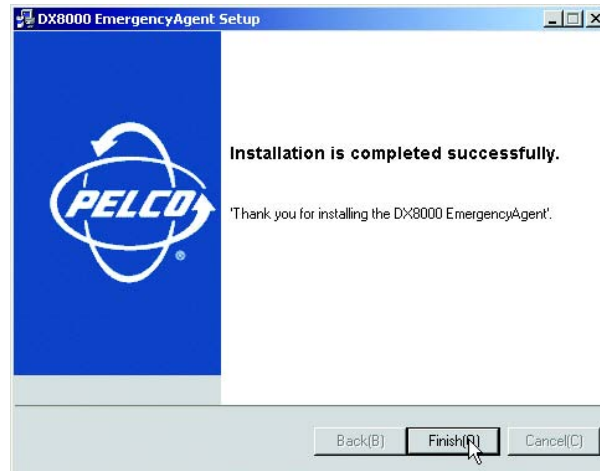
**Figure 140.** Emergency Agent Software License Agreement Dialog Box

8. Read the license agreement, and then select the “I accept this License Agreement” check box.
9. Click Next. The Select Installation Folder dialog box appears.



**Figure 141.** Client Select Installation Folder Dialog Box

10. Click Next to accept the default installation folder.



**Figure 142.** Client Installation Finalization Dialog Box

11. Click Finish to complete the installation process.

## ENABLING IPSEC SECURITY SERVICES

In order to communicate with a networked DX8000 Series DVR, IPsec security must be enabled on your computer.

To enable IPsec security services:

1. Go to Start > Manage IPsec Policy. The DX8000 IPsec Policy dialog box appears.



**Figure 143.** Enabling IPsec Security for the Emergency Agent Application

2. Select the Enable DX8000 IPsec Policy check box if it is not already selected.

## DISABLING IPSEC SECURITY SERVICES

To disable IPsec security services:

1. Go to Start > Manage IPsec Policy. The DX8000 IPsec Policy dialog box appears.



**Figure 144.** Disabling IPsec Security for the Emergency Agent Application

2. Deselect the Enable DX8000 IPsec Policy check box.

**NOTE:** Disabling IPsec security services will prevent your PC from communicating with DX8000 servers. Consult your system administrator before disabling IPsec security.



## BEFORE YOU BEGIN

Ensure that the following requirements have been met before starting the Emergency Agent application:

1. Make sure there is at least one active DX8000 Series DVR available on your network and your computer is set up to access it. Consult your network administrator for more information.
2. Install the DX8000 Emergency Agent application on your computer if you have not done so already. Refer to [Installing the Client Emergency Agent Application](#) on page 241 for instructions.
3. Make sure that Emergency Agent notification is set up on one or more DX8000 Series DVRs, and that your PC has been selected to receive emergency notifications. For information about setting up Emergency Agent notification, refer to the *Emergency Notification Setup* section in the Operation and Programming Manual.
4. Make sure IPSec security services are installed and enabled on your PC. For more information, refer to [Installing the Client Emergency Agent Application](#) on page 241 and [Enabling IPSec Security Services](#) on page 243.

## STARTING THE CLIENT EMERGENCY AGENT

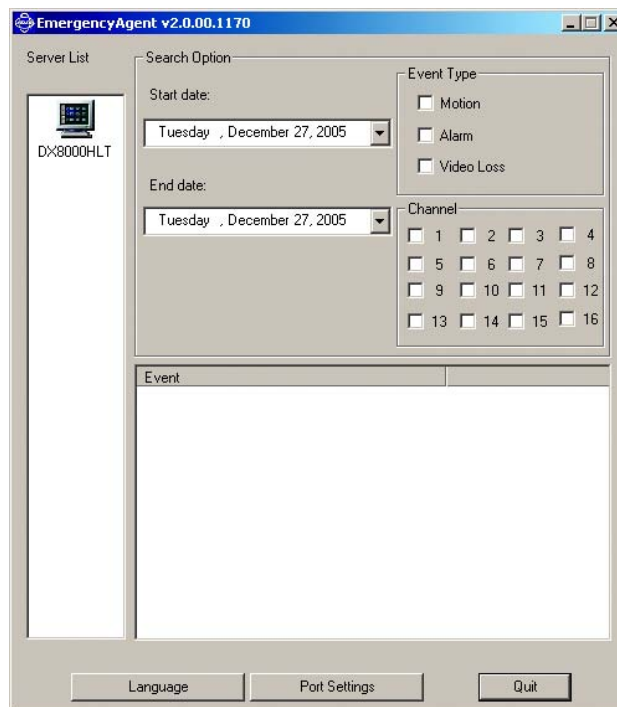
To start the emergency agent software on a client PC:

1. Turn on your PC and wait while Windows loads.
2. Double-click the Emergency Agent icon on the client computer's desktop.



**Figure 145.** Emergency Agent Icon

The Emergency Agent dialog box opens.



**Figure 146.** Client Emergency Agent Dialog Box

## REAL-TIME EVENT MONITORING

Once the Client Emergency Agent has been activated, a motion or alarm event detected by a linked camera on a DX8000 server will cause a pop-up window to display a still image of the event. In addition to real-time monitoring of events, all event notifications sent to the client will be logged for future viewing.



**Figure 147.** Client Emergency Agent Pop-up Window

## SETTING THE CLIENT EMERGENCY AGENT LISTEN PORT

If necessary, you can change the network port used by the Client Emergency Agent.

To change the port:

1. Click the Port Setting button. The Emergency Agent Listen Port dialog box opens.



**Figure 148.** Emergency Agent Listen Port Dialog Box

2. If necessary enter a new port number (default port number is 9004).

**NOTE:** The port number must be an integer between 5000 and 6535. You should keep the default port setting of 9004 unless there is a conflict on your network. Consult your network administrator before changing network port settings.

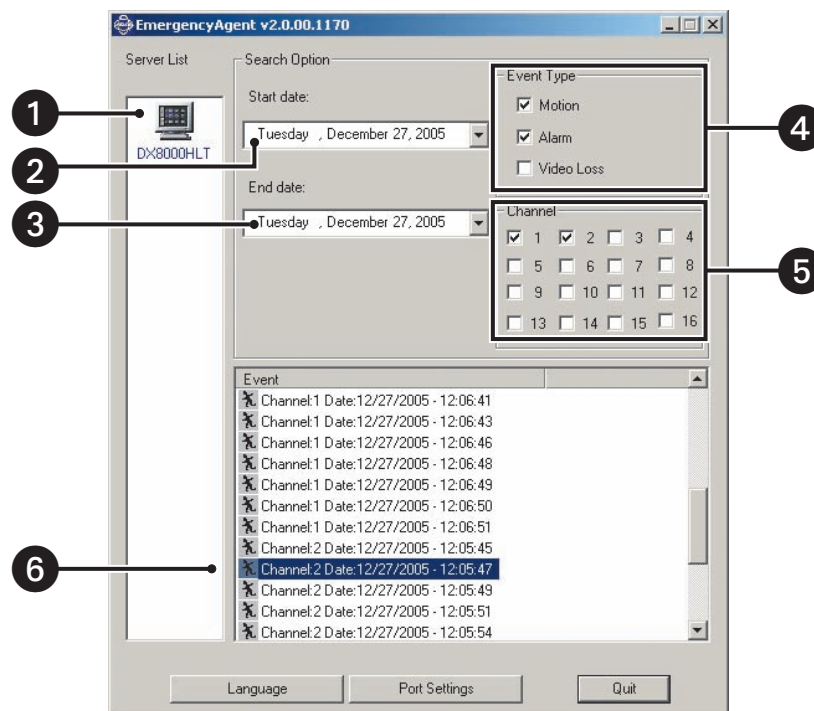
3. Click OK.

## VIEWING PREVIOUSLY LOGGED EVENTS

Over time, the Client Emergency Agent will accumulate event information in a list. This list can be searched and still images of previously logged events can be viewed.

To view previously logged events:

1. Select a DX8000 Series DVR from the Server list.
2. Select a start date to mark the first date to begin searching logged events.  
Setting the start time earlier than the first time you began using the Client Emergency Agent will result in no events appearing in the list.
3. Select an end date to make the last date to search for logged events.
4. Select the type of event (motion, alarm, or video) to search.
5. Select one or more cameras.
6. Double-click each event in the event list you want to view. A pop-up window containing a still image of the logged event will open.



**Figure 149.** Client Emergency Agent Server List and Log

## SHUTTING DOWN THE CLIENT EMERGENCY AGENT

To shut down the Client Emergency Agent:

- ➔ Click Quit.

## DX8000 Viewer

Welcome to the DX8000 Viewer application. The DX8000 Viewer is capable of playing back a variety of video, still image and audio media formats. It is designed to recognize and verify the digital watermark that is embedded in DX8000 native video. Watermarking is used to authenticate the originality of a video file and to alert users of possible image tampering. The viewer application runs automatically each time a CD or DVD created by the DX8000's export feature is inserted into a Windows-based PC. The software can also be installed on a PC and opened independently when necessary.

This section describes how to install, set up, and use the DX8000 Client Viewer, and includes the following topics:

- [Setting Up and Using the DX8000 Viewer](#) on page 247
- [Working with the Playlist](#) on page 253
- [Working with Viewer Configuration Tools](#) on page 255
- [Exiting the DX8000 Viewer Application](#) on page 256

## Setting Up and Using the DX8000 Viewer

---

This section describes how to use the DX8000 Viewer application and includes the following topics:

- [Recommended System Requirements](#) on page 247
- [DX8000 Viewer Software Installation](#) on page 248
- [Starting the DX8000 Viewer](#) on page 249
- [Viewing Media files](#) on page 251
- [Playing Video](#) on page 252
- [Saving Snapshots](#) on page 252
- [Printing Images](#) on page 252
- [Working with the Playlist](#) on page 253

### RECOMMENDED SYSTEM REQUIREMENTS

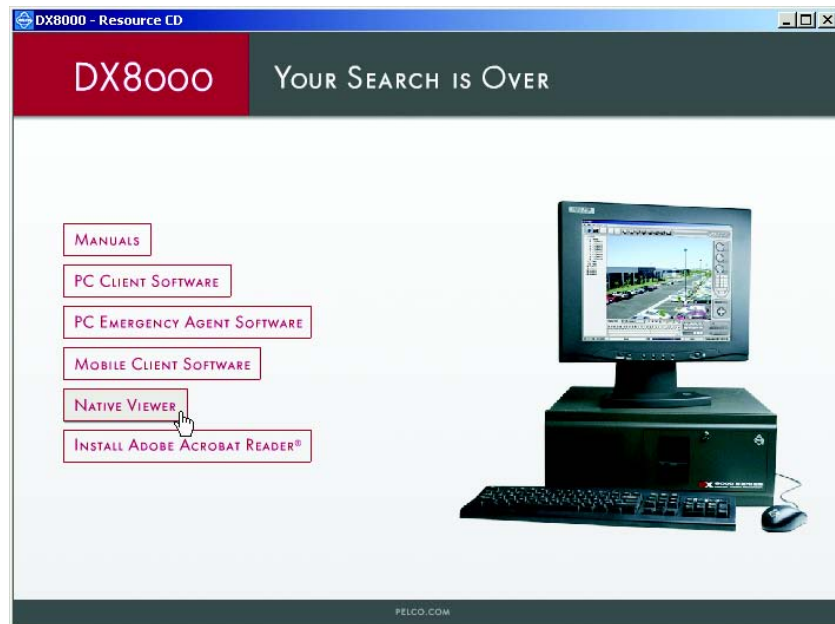
The DX8000 Viewer recommended minimum system requirements include the following:

- Processor: Intel Pentium III, or Pentium 4 with 800 MHz minimum processor speed
- Memory: 128 MB of RAM
- Video: AGP VGA card with minimum of 64 MB of video RAM, 1024 x 768 display resolution, 32-bit color, and DirectX 8.1 or later hardware acceleration
- 4.5 MB of free disk space
- Monitor: SVGA or XGA with 1024 x 768 resolution, 32-bit color
- Operating system: Windows 2000 (SP4) or Windows XP only

## DX8000 VIEWER SOFTWARE INSTALLATION

To install the DX8000 Viewer software:

1. Start the Windows operating system.
2. Close all programs, including any antivirus software.
3. Insert the DX8000 Resource CD into the CD-ROM drive of your PC and wait for the DX8000 Resource CD screen to appear.



**Figure 150.** Resource CD Screen: DX8000 Viewer Option

4. Click DX8000 Viewer to install the viewer application, and then follow the directions on the screen.

## STARTING THE DX8000 VIEWER

The Playback speed cannot be changed in the DX8000 Viewer. After opening up a saved file, the program will not allow you to move the slider to speed up or slow down the video.

To start the DX8000 Viewer software on a client PC:

1. Turn on the client computer and wait while Windows loads.
2. Double-click the DX8000 Viewer icon on the client computer's desktop.



**Figure 151.** DX8000 Viewer Icon

The DX8000 Viewer application window opens.



**Figure 152.** DX8000 Viewer Main Screen







The following table describes the parts of the DX8000 Viewer window.

**Table AN.** Parts of the DX8000 Mobile Client Window

Item	Part
1	Toolbar
2	View panel
3	Playback controls
4	Playback slider
5	Volume controls (click speaker icon to toggle audio mute)
6	Watermark verification message area
7	Play speed control for video captured in the DX8000 Native format.

The following table describes the DX8000 Viewer toolbar buttons.

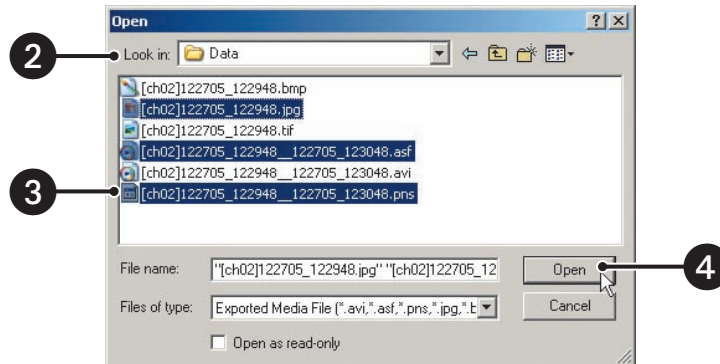
**Table AO.** DX8000 Viewer Toolbar Buttons

Button	Name	Description
	Folder	Browse drives and open media files.
	Save	Save a snapshot of the current screen image.
	Print	Print the current screen image.
	Playlist	Expand window to reveal playlist.
	Configuration	Expand the window to reveal configuration tools.
	Watermark	Check that a valid watermark is embedded.

## VIEWING MEDIA FILES

To open a file for viewing:

1. On the DX8000 Viewer toolbar, click . The Open dialog box appears.



**Figure 153.** Open Dialog Box

2. Click the "Look in" drop-down box to select the drive and folder location where the media file(s) resides.
3. Select the file(s) you want to play.
4. Click Open. The file opens in the DX8000 Viewer window in the Play mode.




**Figure 154.** View Panel Image



## PLAYING VIDEO

You can play video files in the DX8000 Viewer after they have been opened. The DX8000 Viewer provides a speed control that allows you to speed up playback of video exported in the Native format.

To begin playback of an exported DX8000 video file:


1. On the DX8000 Viewer toolbar, click .
2. Use the playback controls and playback slider to move through a video file.
3. Do the following:
  - a. Use the audio controls to increase, decrease, or mute playback volume.
  - b. Use the speed control to increase or decrease the playback of video exported in the Native format.

## SAVING SNAPSHOTS

You can take snapshots of still images that appear in the view panel. Use the playback controls to pause a video file on a specific still image. Snapshots are stored in a folder for later retrieval or viewing. For information on changing the location of the snapshot folder, refer to [Working with Viewer Configuration Tools](#) on page 255.

To save a snapshot of a still image appearing on the screen:

- ➔ On the DX8000 Viewer toolbar, click Save.


For example, click .

## PRINTING IMAGES

You can print still images that appear in the view panel. Use the playback controls to pause a video file on a specific still image.

To print a still image:

- ➔ On the DX8000 Viewer toolbar, click Print.

For example, click .

## WORKING WITH THE PLAYLIST

The DX8000 viewer application allows you to create, load, and save playlists of media files. This section describes how to work with the playlist and includes the following topics:

- [Accessing the Playlist](#) on page 253
- [Adding Files to the Current List](#) on page 254
- [Removing Media Files from the Current List](#) on page 254
- [Playing a File from the Playlist](#) on page 254
- [Loading a Previously Saved Playlist](#) on page 254
- [Saving the Current Playlist](#) on page 254

### ACCESSING THE PLAYLIST

To access the playlist:

➔ On the DX8000 Viewer toolbar, click Playlist.

For example, click . The following figure shows the playlist.

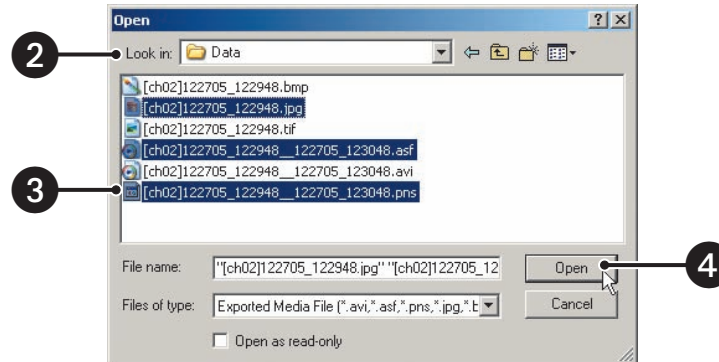


Figure 155. Viewer Playlist

## ADDING FILES TO THE CURRENT LIST

To add media files to the current list:

1. In the Playlist dialog box, click . The Open dialog box opens.




**Figure 156.** Adding Files to a Play List

2. Click the "Look in" drop-down box to select the drive and folder location where the media file(s) resides.
3. Select the file(s) you want to play.  
Use the Ctrl key to select multiple files at one time to add to the playlist.
4. Click Open.

## REMOVING MEDIA FILES FROM THE CURRENT LIST

To remove media files from the current list:

1. In the Playlist dialog box, select a file from the list.
2. Click  to remove the file.

## PLAYING A FILE FROM THE PLAYLIST


If there are multiple files in the playlist, each file will play in the order that appears in the list.

To play a file from the playlist:, double click its name.

➔ In the Playlist dialog box, double-click a file name.

## LOADING A PREVIOUSLY SAVED PLAYLIST

To load a previously saved playlist:


1. In the Playlist dialog box, click .
2. Select a saved playlist file.

## SAVING THE CURRENT PLAYLIST

Depending on the amount of data stored and the type of media used, it may take several minutes to load playlists.

To save the current playlist to disk:

➔ In the Playlist dialog box, Save.

For example, click .

## WORKING WITH VIEWER CONFIGURATION TOOLS

This section describes how to use the DX8000 Viewer configuration tools and includes the following topics:

- [Accessing Viewer Configuration Tools](#) on page 255
- [Adjusting Picture Quality](#) on page 255
- [Changing the Snapshot Directory](#) on page 256
- [Changing the Language](#) on page 256
- [Enabling/Disabling Filtered Image Display](#) on page 256

### ACCESSING VIEWER CONFIGURATION TOOLS

To access the Viewer Setup dialog box:

- ➔ On the DX8000 Viewer toolbar, click Configuration.
- The Configuration Tools dialog box is displayed in the Viewer window pane.



**Figure 157.** Viewer Configuration Tools

### ADJUSTING PICTURE QUALITY

The DX8000 Viewer Configuration Tools dialog box provides the following controls to adjust picture quality:

- Brightness
- Contrast
- Hue
- Saturation


To adjust the picture quality in the view panel:

- ➔ In the Configuration Tools dialog box, use the sliders to adjust the picture.

## CHANGING THE SNAPSHOT DIRECTORY

To change the default directory where snapshots are stored:

➔ In the Configuration Tools dialog box, click Browse and navigate to a directory.

For example, click .

## CHANGING THE LANGUAGE

To change the language:

1. On the DX8000 Viewer toolbar, click Tools. The menu is displayed.
2. In the Language section, select a language.
3. Close the DX8000 Viewer application.
4. Restart the DX8000 Viewer application.

## ENABLING/DISABLING FILTERED IMAGE DISPLAY


To enable/disable filtered image display:

1. On the DX8000 Viewer toolbar, click Tools. The menu is displayed.
2. Do one of the following:
  - To enable filtered image display, click the check box in the Language section to select the Filtered Image display box.
  - To disable filtered image display, click the check box in the Language section to deselect the Filtered Image display box.

## VERIFYING THE WATERMARK

Watermarking is used to authenticate the originality of a video file and to alert users of possible image tampering.


To verify the watermark:

1. Open an exported video image.
1. On the DX8000 Viewer toolbar, click . The Watermark Viewer dialog box opens.
2. Click Watermark Check. The DX8000 Viewer performs a check to verify if the watermark is authentic and displays the result in the Watermark Viewer dialog box and the video image.

## EXITING THE DX8000 VIEWER APPLICATION

To exit the DX8000 viewer application:

➔ Click the Close button in the top-right corner of the viewer window.

For example, click .

# DX8000 Mobile Client

Welcome to the DX8000 Mobile Client application. The DX8000 Mobile Client allows you to view live video remotely from multiple cameras and sites. Networking capabilities include local connection using wire-bound or wireless LAN technologies or remote connection using the Internet. The DX8000 Mobile Client software runs on a standard pocket PC-based PDA and can display a single channel of real-time video from any camera attached to any DX8000 DVR on the network. Features include hierarchical organization of multiple sites, built-in security through password protection, and an adjustable viewing area, including full-screen view.

## Setting Up and Using the DX8000 Mobile Client

---

This section describes how to install, set up and use the DX8000 Mobile Client, and includes the following topics:

- [Mobile \(PDA\) Client Recommended System Requirements](#) on page 257
- [Mobile \(PDA\) Client Software Installation](#) on page 258
- [Connecting Mobile Clients to a DX8000 Series DVR](#) on page 260
- [Starting the DX8000 Mobile Client](#) on page 261
- [Exiting the DX8000 Mobile Client](#) on page 263
- [Setting Up User Security](#) on page 263
- [Logging in to the Mobile Client application](#) on page 265
- [Working with Sites and Groups](#) on page 266
- [Connecting to a DX8000 Site](#) on page 273
- [Disconnecting From a Server Site](#) on page 273
- [Viewing Live Video](#) on page 274
- [Customizing the View Screen](#) on page 275

### MOBILE (PDA) CLIENT RECOMMENDED SYSTEM REQUIREMENTS

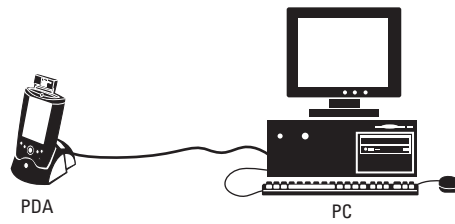
The DX8000 Mobile Client PDA recommended minimum system requirements includes the following:

- PDA Hardware: A pocket PC-compatible handheld device.
- Processor: Intel XScale® compatible with a minimum processor speed of 400 MHz
- Memory: 64 MB of RAM
- Video: TFT liquid crystal display with minimum 240 x 320 display resolution, 64K colors
- Operating System: Microsoft pocket PC 2002 or later
- A PC with Windows operating system and Microsoft ActiveSync® version 3.5 or later installed
- Wired or wireless networking capability

## MOBILE (PDA) CLIENT SOFTWARE INSTALLATION

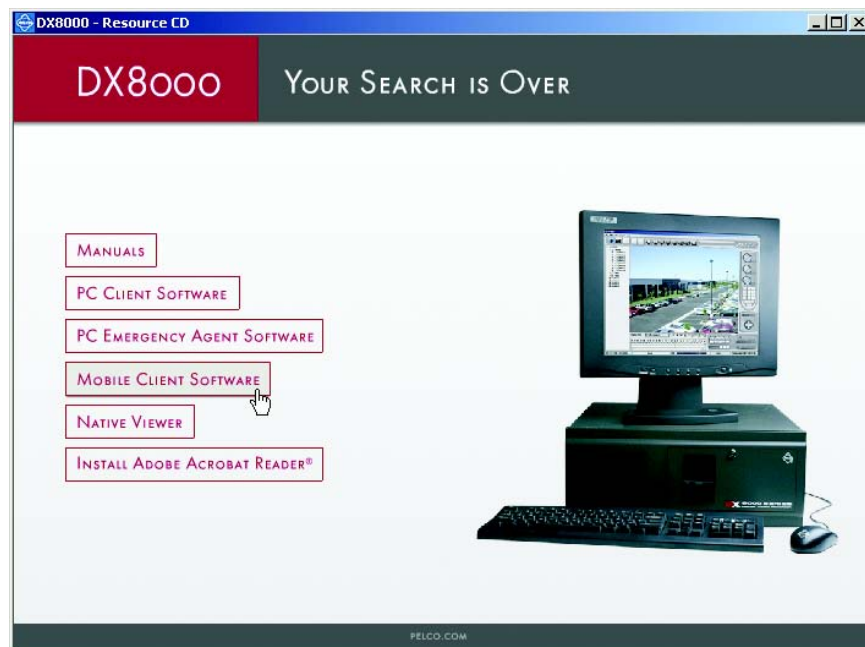
To install the DX8000 Mobile Client:

1. Install ActiveSync on your Windows PC if it is not already present.
2. Connect your hand-held device to your PC.



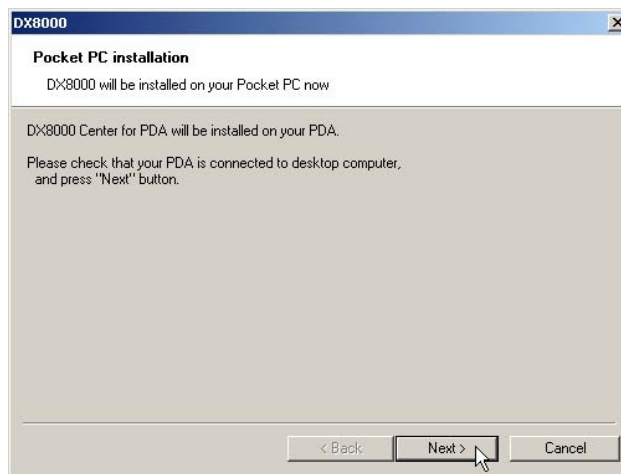
**Figure 158.** PDA-to-PC Connection

3. Turn on your handheld device if it is not already running.
4. Insert the DX8000 Resource CD into the CD-ROM drive of your PC, and wait for the DX8000 Resource CD screen to appear.



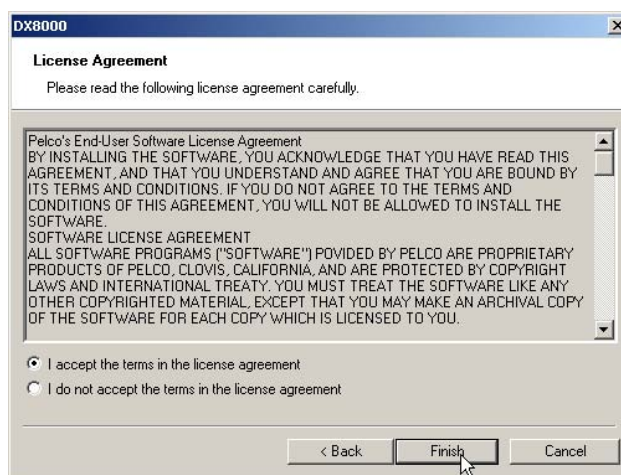
**Figure 159.** Resource CD Screen: Mobile Client Installation Option

5. Click Mobile Client Software. The Pocket PC installation screen appears.



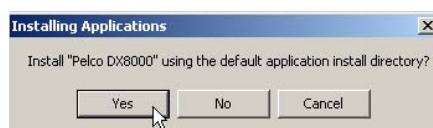
**Figure 160.** Pocket PC Installation Dialog Box

6. Click Next.
7. Read and agree to the license agreement and then click Finish.



**Figure 161.** Mobile Client License Agreement Dialog Box

8. When the Installing Applications dialog box appears, click Yes to accept the default installation directory.



**Figure 162.** Installing Applications Dialog Box

9. Wait while ActiveSync copies the DX8000 Mobile Client program files to your handheld device, and then click OK from the Application Downloading Complete dialog box.



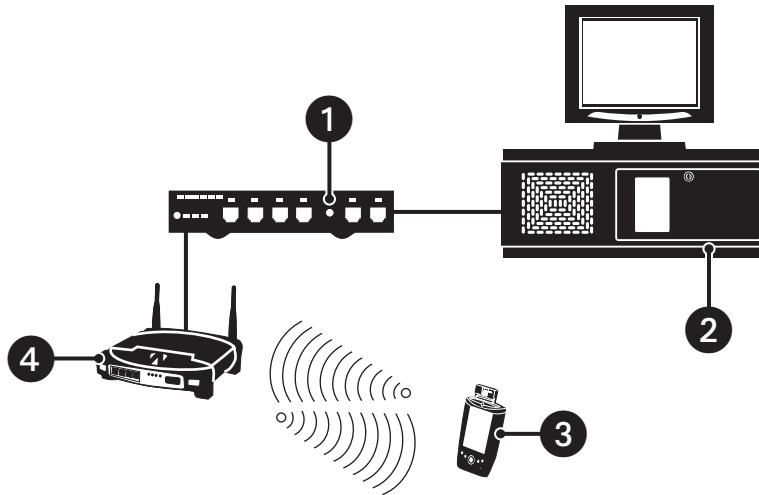
**Figure 163.** Application Downloading Complete Dialog Box



## CONNECTING MOBILE CLIENTS TO A DX8000 SERIES DVR

Using a wired or wireless network connection, the DX8000 Mobile Client application can monitor live video from a number of geographically dispersed DVRs. The following figure illustrates a simplified wireless network connecting a pocket PC-compatible PDA device to a single DX8000 DVR.

Detailed instructions describing how to configure your particular PDA device for wireless networking is beyond the scope of this manual. Consult your network administrator and the documentation that came with your device for instructions on connecting your PDA to a network.



**Figure 164.** PDA-to-DVR Wireless Networking Example

The following table describes the components of a DX8000 Mobile Client network.

**Table AP.** Components of a DX8000 Mobile Client Network

Item	Component
1	Ethernet Switch
2	DX8000 Server DVR
3	Mobile Client
4	Wireless Access Point

When using wireless networking to connect a mobile device to the DX8000, Pelco recommends using enterprise class access points, transceivers, and switches. Wired networking infrastructure should comply with IEEE 802.3 Fast Ethernet standards. Wireless networking infrastructure should comply with IEEE 802.11a, b, or g networking standards.

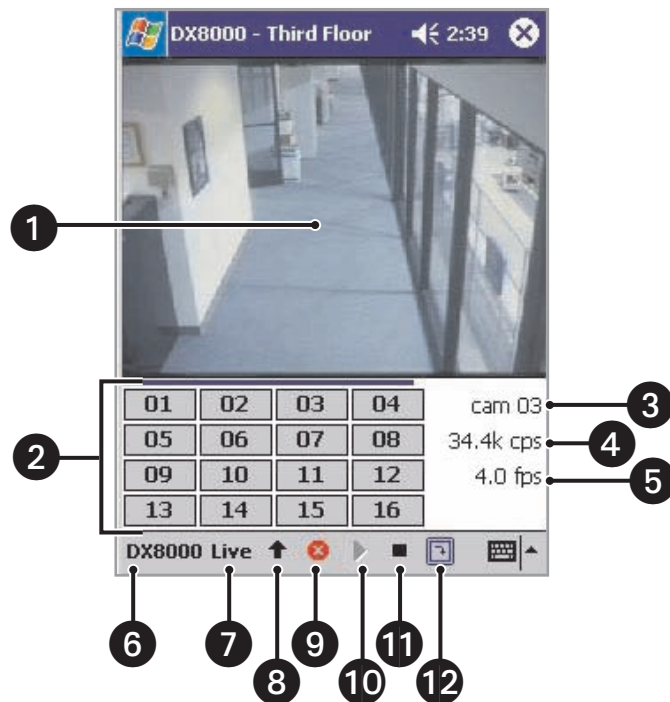
## STARTING THE DX8000 MOBILE CLIENT

Before attempting to start the DX8000 Mobile Client application, make sure you have installed the Mobile Client software on your pocket PC-compatible handheld device and you have an active network connection to a DX8000 DVR server.

To start the DX8000 Mobile Client application:

- ➔ From the Windows Start menu, choose Start > Programs > DX8000.  
The DX8000 Mobile Client application starts.

The following figure shows the DX8000 Mobile Client application window.



**Figure 165.** Main Screen

The following table describes the parts of the DX8000 Mobile Client window.

**Table AQ.** Parts of the DX8000 Mobile Client Window

Item	Part
1	View window
2	Camera selection buttons
3	Currently viewed camera
4	Data rate
5	Mobile Client frame rate
6	DX8000 menu
7	Live menu
8	Connect
9	Disconnect
10	Resume live view
11	Pause live view
12	Switch to full-screen view

## EXITING THE DX8000 MOBILE CLIENT

To exit the DX8000 Mobile Client application:

1. On the DX8000 Mobile Client toolbar, tap DX8000.
2. Tap Exit.

You can also Tap the  icon on the title bar to exit.

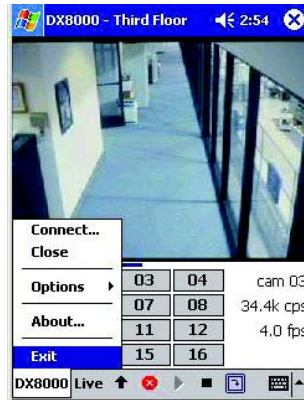


Figure 166. Exiting the Program

## SETTING UP USER SECURITY

This section describes how to set up security and includes the following topics:

- [Setting Up an Initial Password](#) on page 263
- [Changing an Existing Password](#) on page 264

### SETTING UP AN INITIAL PASSWORD

To set up an initial password:

1. Tap DX8000 > Options > Security.

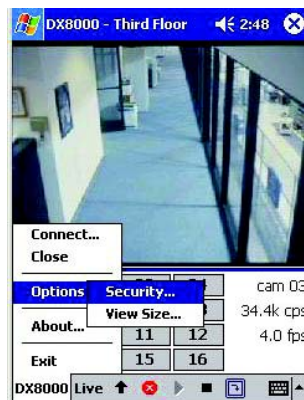


Figure 167. DX8000 Menu Security Option

2. Leave the Current text box blank.
3. Enter a password in the New text box. (Passwords must be between 4 and 10 characters long and can include spaces and special characters.)
4. Re-enter the new password in the Confirm text box.
5. Tap OK.



**Figure 168.** Entering a New Password

## CHANGING AN EXISTING PASSWORD

To change an existing password:

1. Tap DX8000 > Options > Security.



**Figure 169.** Security Menu Option

2. Enter your password in the Current text box.
3. Enter a different password in the New text box. (Passwords must be between 4 and 10 characters long and can include spaces and special characters.)
4. Re-enter the new password in the Confirm text box.
5. Tap OK.

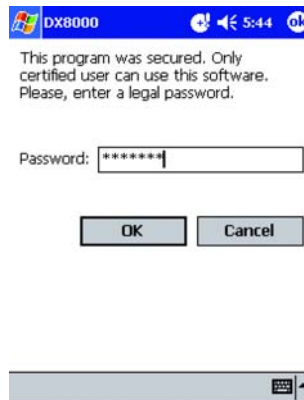


**Figure 170.** Changing a Password

## LOGGING IN TO THE MOBILE CLIENT APPLICATION

After the security password has been assigned, you must log in to the Mobile Client application each time it is launched.

To log in to the Mobile Client application, enter a password in the field provided and then click OK.



**Figure 171.** Mobile Client Log In Prompt


## WORKING WITH SITES AND GROUPS

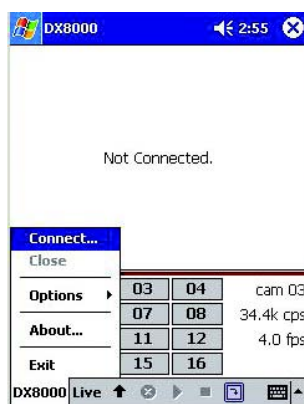
This section describes how to work with sites and groups and includes the following topics:

- [Creating Site Groups](#) on page 266
- [Editing an Existing Group](#) on page 268
- [Deleting a Group](#) on page 269
- [Adding a DX8000 Site to a Group](#) on page 270
- [Editing a DX8000 Site](#) on page 271
- [Deleting a DX8000 Site](#) on page 272

### CREATING SITE GROUPS

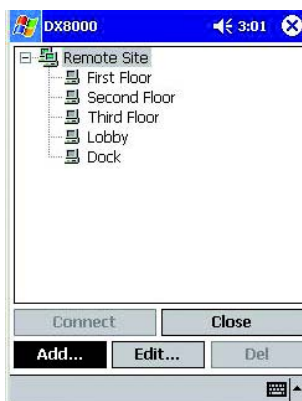
To create site groups:

1. Tap  on the toolbar to take you directly to the Connect screen.  
You can also Tap DX8000 > Connect to go to the Connect screen.



**Figure 172.** Connect Menu Option

2. Tap Add.



**Figure 173.** Connect Screen

3. Tap New Group.



**Figure 174.** Creating a New Group

4. Enter a name for the new group. (Group names can be a maximum of 15 characters long and can include spaces and special characters.)
5. Tap OK.



**Figure 175.** Entering a Name

6. Tap Cancel to return to the Connect screen.




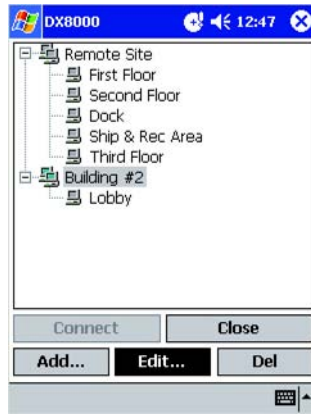
**Figure 176.** Finalizing New Group Creation



## EDITING AN EXISTING GROUP

To edit an existing group:

1. Tap .
2. Select the group you wish to edit.
3. Tap Edit.



**Figure 177.** Editing a Group

4. Enter a new group name.
5. Tap OK.




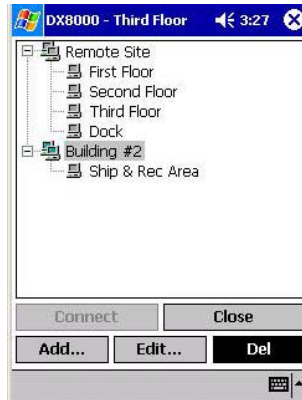
**Figure 178.** Editing Group Information

6. Tap Close to return to the main screen.

## DELETING A GROUP

To delete a group:

1. Tap the  icon on the toolbar.
2. Select the group you wish to delete.  
You cannot delete the Remote Site group.
3. Tap Del.



**Figure 179.** Deleting a Group

4. Select an option to either delete or retain sites within the group to be deleted.
  - Select "Moved into default group" to move any sites to the Remote Site group.
  - Select "DELETED" to delete the group and any sites contained within it.
5. Tap OK to complete the deletion process for the group.




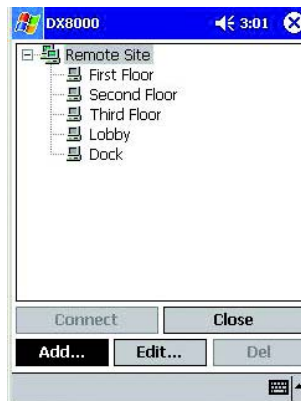
**Figure 180.** Finalizing Group Deletion

6. Tap Close to return to the main screen.

## ADDING A DX8000 SITE TO A GROUP

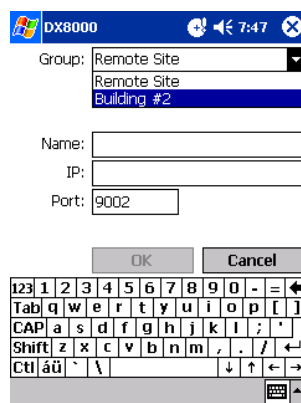
To add a DX8000 site to a group:

1. Tap .
2. Tap Add.



**Figure 181.** Adding a New DX8000 Site

3. Select a Group from the drop-down box.



**Figure 182.** Site Setup Screen

4. Enter a name for the new DX8000 site. (Site names can be a maximum of 15 characters; spaces and special characters are allowed.)
5. Enter the IP address of the new site.
6. If necessary enter a new base port number (9002 is the default).

Consult your network administrator before assigning or changing port numbers. Make sure that the ports are not blocked internally but are protected from external threats by a firewall. Mobile client and server ports must be identical.

7. Tap OK.

DX8000 7:42

Group: Building #2

New Group...

Name: Ship & Rec Area

IP: 192.168.1.108

Port: 9002

OK Cancel

Figure 183. Entering New Site Information

8. Tap Connect to connect to the newly created site, or tap Close to go back to the main screen.

DX8000 - Third Floor 3:24

Remote Site

- First Floor
- Second Floor
- Third Floor
- Lobby
- Dock
- Building #2
  - Ship & Rec Area


Connect Close

Add... Edit... Del

Figure 184. New Site in Connect Window

EDITING A DX8000 SITE

To edit a DX8000 site:

- 1. Tap the  icon on the toolbar.
- 2. If necessary, tap the plus (+) sign next to the group name to expand it.
- 3. Select the DX8000 DVR you want to edit.
- 4. Tap Edit.

DX8000 - Third Floor 3:25

Remote Site

- First Floor
- Second Floor
- Third Floor
- Lobby
- Dock
- Building #2
  - Ship & Rec Area

Connect Close

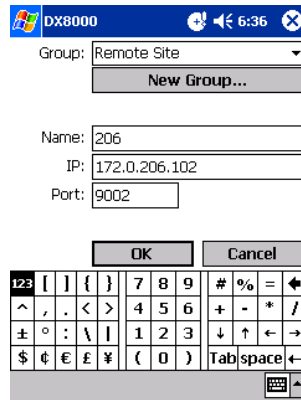
Add... Edit... Del

Figure 185. Selecting a Site to Edit

5. Enter a new name for the site.
6. Enter a new IP address for the site.
7. If necessary enter a new base port number (9002 is the default).

Consult your network administrator before assigning or changing port numbers. Make sure that the ports are not blocked internally but are protected from external threats by a firewall. Web client and server ports must be identical.

8. Tap OK.




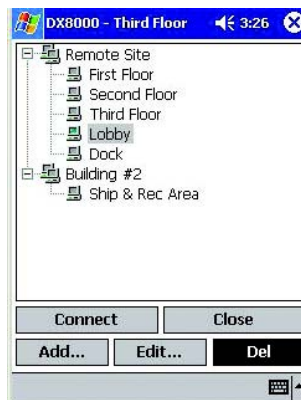
**Figure 186.** Changing a Site's Name and IP Address

9. Tap Close to return to the main screen.

## DELETING A DX8000 SITE

To delete a DX8000 site:

1. Tap the  icon on the toolbar.
2. If necessary, tap the plus (+) sign next to the group name to expand it.
3. Select the DX8000 DVR Site you wish to delete.
4. Tap Del.




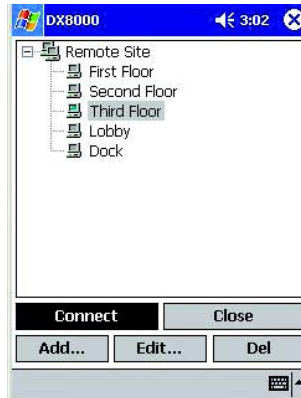
**Figure 187.** Deleting a Site

5. Tap Close to return to the main screen.

## CONNECTING TO A DX8000 SITE

To connect to a DX8000 site:

1. Tap the  icon on the toolbar.
2. If necessary, tap the plus (+) sign next to the group name to expand it.
3. Select the DX8000 DVR you wish to connect to.
4. Tap Connect to connect to the remote site and return to the main screen.




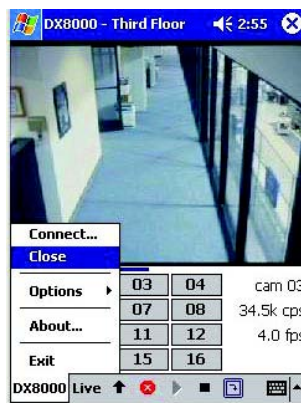
**Figure 188.** Connecting to a DVR Site

## DISCONNECTING FROM A SERVER SITE

To disconnect from a server site:

1. Tap DX8000 on the toolbar.
2. Tap Close.

Also, tapping the  icon on the title bar will disconnect the site.





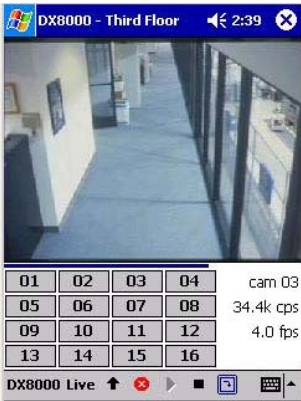
**Figure 189.** Disconnecting from a Site

# VIEWING LIVE VIDEO

To view live video:

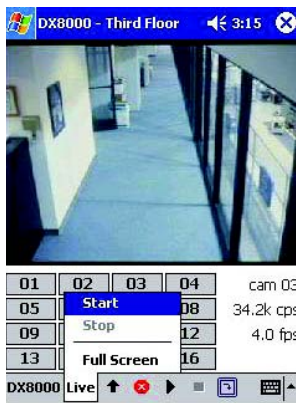
Once you have connected to a DX8000 site, the main screen displays a live image from Camera 1 of the connected site. [Figure 236](#) illustrates live view from the main screen.

- 1. Tap one of the camera selection buttons to view live video from a different camera.
- 2. Tap the  to pause the image.
- 3. Tap the  to resume live view.



**Figure 190.** Viewing Live Video from the Main Screen

You can pause an image and resume live view by choosing menu commands as well. Tap Live > Stop to pause and Live > Start to resume live viewing.



**Figure 191.** Live Menu with Start and Stop Options

# CUSTOMIZING THE VIEW SCREEN

This section describes how to customize the view screen and includes the following topics:

- [Changing Screen Size](#) on page 275
- [Full-Screen Mode](#) on page 276

## CHANGING SCREEN SIZE

To change the size of the main screen viewing area:

1. Tap DX8000 > Options > View Size.

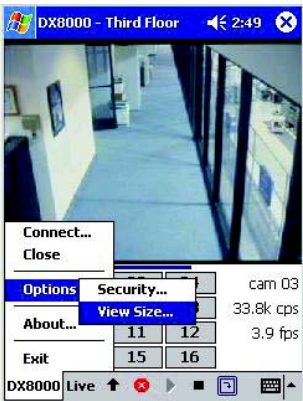


Figure 192. DX8000 Menu and View Size Option

2. Deselect the Auto Fit check box.
3. Move the slider to the desired position. (Screen size ranges from 120 x 90 to 240 x 180 pixels).
4. Tap OK.

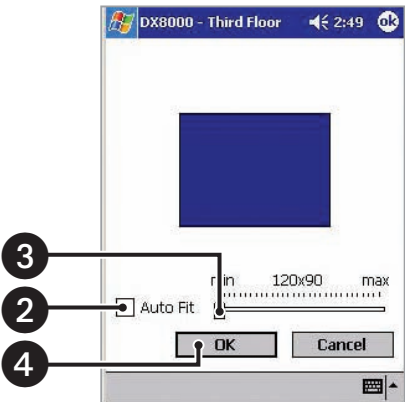


Figure 193. Minimum Screen Size

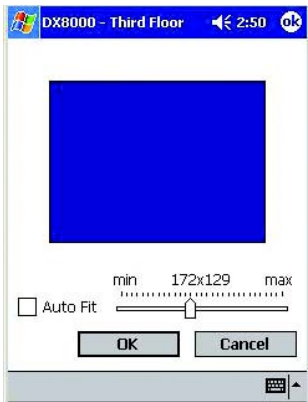


Figure 194. Medium Screen Size

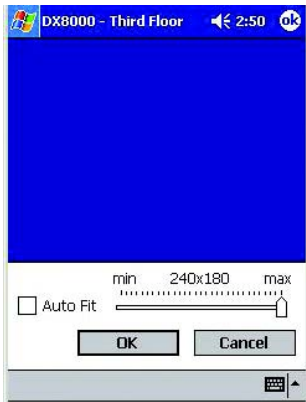


Figure 195. Maximum Screen Size



## FULL-SCREEN MODE

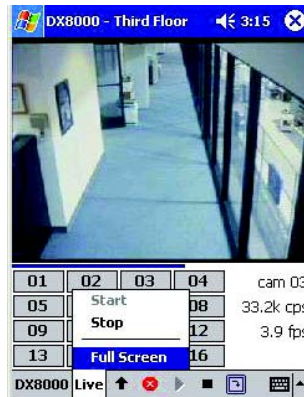
To change to full-screen view:

1. Tap .



**Figure 196.** Full-Screen View

2. Tap anywhere on the screen to exit full-screen view.  
You can also tap Live > Full Screen to change to full-screen view.



**Figure 197.** Live Menu and Full-Screen Option

## DX8000 Web Client

Welcome to the DX8000 Web Client application. This section describes how to use the DX8000 Web Client application and includes the following topics:

- [Using the DX8000 Web Client](#) on page 277
- [Web Client Configuration](#) on page 282
- [Viewing Live Video](#) on page 291

## Using the DX8000 Web Client

---

### DESCRIPTION

The DX8000 Web Client allows you to view live video and operate PTZ features of cameras attached to DX8000 Series DVRs. Using a standard web browser, you can remotely monitor up to 16 cameras from up to five DX8000 servers simultaneously. Each DX8000 DVR can support up to 100 web clients either internally within an organization or externally through the Internet.

Features:

- Live viewing of up to 16 cameras simultaneously
- Ability to monitor cameras from multiple DX8000 sites
- Multiple screen division options, including single, quad, and sixteen panel views
- Full PTZ control
- Runs on multiple platforms using a standard web browser

### SYSTEM REQUIREMENTS

The DX8000 Web Client recommended minimum system requirements include the following:

- Processor: Intel® Pentium® III, or Pentium 4 with 800 MHz minimum processor speed
- Memory: 128 MB of RAM
- Video: AGP VGA card with minimum of 64 MB of video RAM, 1024 x 768 display resolution, 32-bit color, and DirectX® 8.1 or later hardware acceleration
- 4.5 MB of free disk space
- Monitor: SVGA or XGA with 1024 x 768 resolution, 32-bit color
- Operating system: Windows® 2000 (SP4) or Windows XP only

**NOTE:** The DX8000 Web Client is only compatible with Internet Explorer®.

## INSTALLATION

The first time you use a web browser to connect to a DVR server, an ActiveX® control application is downloaded and installed on your local computer. This control facilitates usage of the Web client's interactive features.

1. To install and enable IPsec security services, refer to either [Installing the Client Application](#) on page 24 or [Installing the Client Emergency Agent Application](#) on page 241 for instructions on installing IPsec security services. Refer to [Enabling IPsec Security Services](#) on page 243 for instructions on how to enable IPsec security services.

You must install either the PC Client application or the Client Emergency Agent application to install IPsec security services.

2. Start Microsoft Internet Explorer web browser.

**NOTE:** The DX8000 Web Client is only compatible with Internet Explorer.

3. Enter the IP address of one of the DX8000 servers you want to connect to in the address bar.
4. Click Go. The ActiveX installation dialog box appears.



**Figure 198.** ActiveX Control Installation Dialog Box

5. Do the following:
  - a. Click the check box to select "Always trust content from Pelco."
  - b. Click Yes.
6. Wait while the ActiveX controls are downloaded to your PC and your browser software is updated.

## STARTING THE DX8000 WEB CLIENT

Your Web browser must have cookies enabled. Refer to Microsoft Internet Explorer Help for instructions on enabling cookies. User names and passwords are case sensitive; type them exactly as shown.

**NOTES:** To avoid potential problems and conflicts within your computer's video subsystem, run only one instance of the Client application or Web Client at a time. You must have IPSec security services enabled to use the DX8000 Web Client.

To activate the DX8000 Web Client application:

1. Start Microsoft Internet Explorer.
2. Enter the IP address of one of the DX8000 servers you wish to connect to in the address bar. The Digital Video Recorder dialog box opens.



**Figure 199.** Entering a DX8000 Server User Name and Password

3. Enter a DX8000 server user name.
4. Enter the DX8000 server password.
5. Click Log In. The DX8000 Web Client screen appears.

# EXITING THE DX8000 WEB CLIENT

To exit the Web Client application, select File > Close from the browser window.

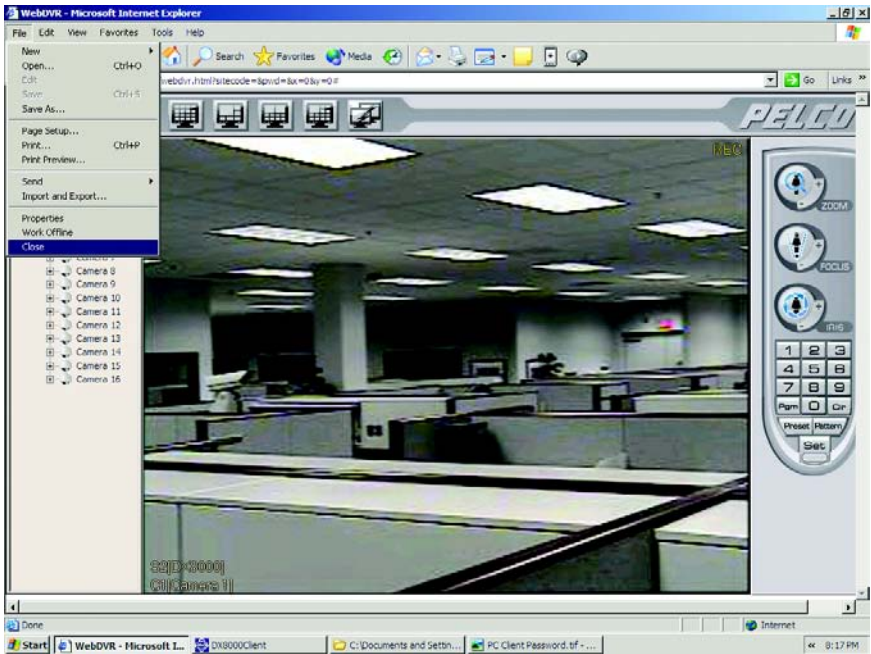


Figure 200. Web Browser File Menu

# SCREEN LAYOUT

Cameras can be assigned to view panels, live video can be displayed, and PTZ features can be controlled from a single screen. [Figure 247](#) can be used to locate each available feature of the DX8000 Web Client application.

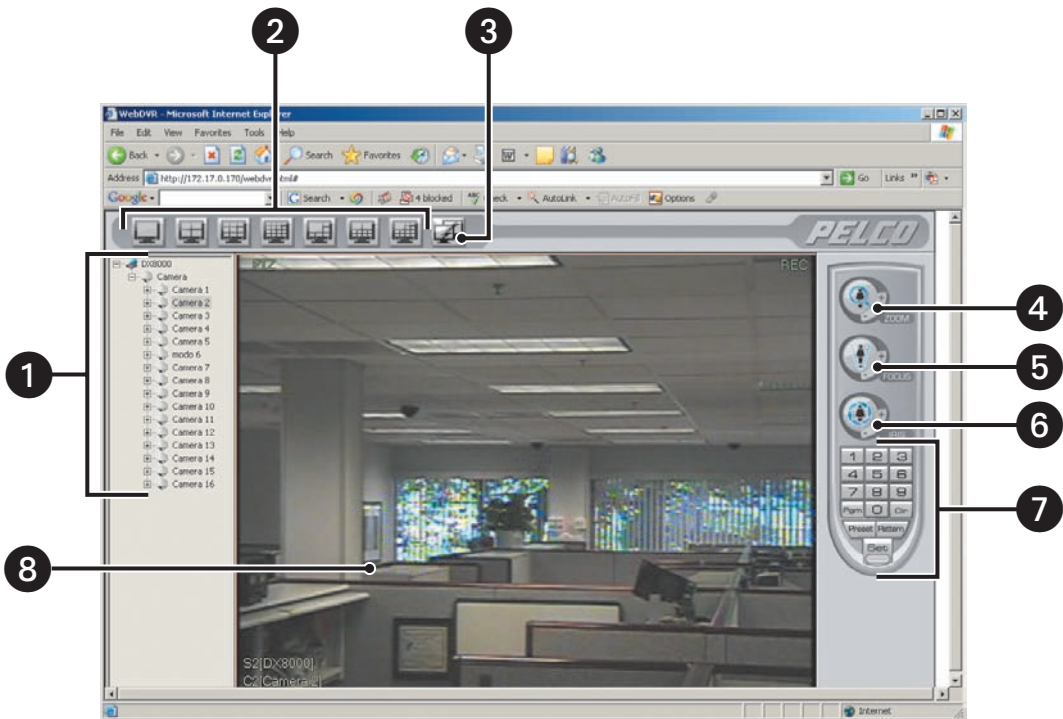


Figure 201. Web Client Screen Layout

The following table describes the Web Client application window.

**Table AR. Web Client Application Window Parts**

<b>Item</b>	<b>Description</b>
<b>1</b>	Site tree
<b>2</b>	Screen division buttons
<b>3</b>	Remote site connection button
<b>4</b>	PTZ zoom control
<b>5</b>	PTZ focus control
<b>6</b>	PTZ iris control
<b>7</b>	PTZ keypad
<b>8</b>	View pane or view panel

# Web Client Configuration

## WORKING WITH THE CONNECTION LIST

Before live video can be viewed from the Web Client's view panels, at least one connection to a remote DX8000 server must be established. Up to 100 DX8000 server sites can be added to the Connection List. Each DX8000 DVR can support up to 100 web clients either internally within an organization or externally through the Internet.

This section describes how to work with the connection list and includes the following topics:

### ADDING SITES TO THE CONNECTION LIST

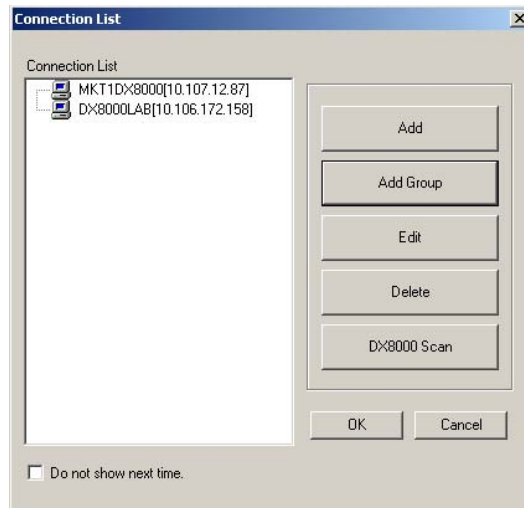
This section describes how to work add a site when you know or do not know the site's IP address, and includes the following topics:

- [Adding a DX8000 Site with a Known IP Address](#) on page 282
- [Adding a DX8000 Site with a Unknown IP Address](#) on page 283

#### Adding a DX8000 Site with a Known IP Address

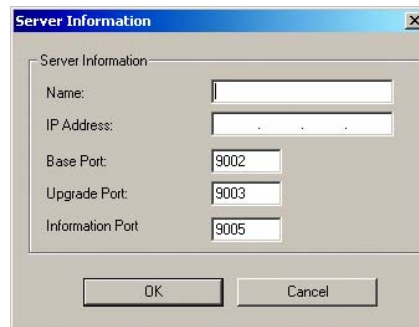
To add a site to the Connection List when you know the site's IP address:

1. Click . The Connection List dialog box opens.



**Figure 202.** Connection List Dialog Box

2. Click Add. The Server Information dialog box appears.



**Figure 203.** Server Information Dialog Box

3. Enter the name of the DX8000 Series DVR you wish to connect to.
4. Enter the IP address of the DVR.

5. If necessary enter a new base port number (9002 is the default).

Consult your network administrator before assigning or changing port numbers. Make sure that the ports are not blocked internally but are protected from external threats by a firewall. Web client and server ports must be identical.

6. If necessary, enter a software upgrade port number (9003 is the default).
7. If necessary, in the Information Port box, enter a new information port (9005 is the default).
8. Click OK. The site appears in the Connection List.

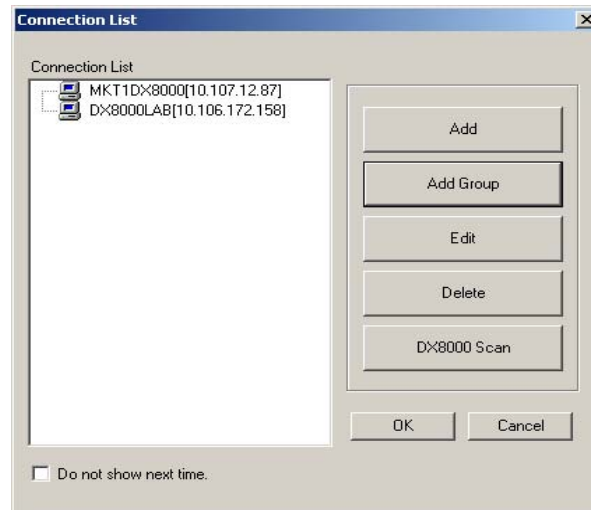
### Adding a DX8000 Site with a Unknown IP Address

To add a remote DVR site to the Connection List when you do not know the IP address of the site:

**NOTE:** To be successful, the following stipulations must be satisfied:

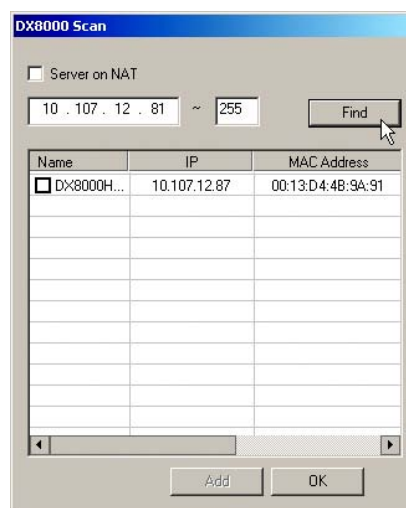
- Each DVR must be attached to the same subnet.
- The first three octets of the IP address of the subnet must be known.
- The range of addresses used in the last octet of the subnet must be known.

1. Click . The Connection List dialog box opens.



**Figure 204.** Connection List Dialog Box

2. Click DX8000 Scan. The DX8000 Scan dialog box appears.



**Figure 205.** DX8000 Scan Dialog Box

3. If your server is on Network Address Translation (NAT), click the Server on NAT check box.



4. Enter an IP address range to search for DVR sites.
  - a. Enter the first three octets of the IP range you wish to search; as an example **10.10.1**.
  - b. Enter the beginning value for the search range in the fourth octet; as an example **001**.
  - c. Enter the final value for the search range in the text box provided; as an example **254**.

**NOTE:** Each octet of the IP address must be an integer between 1 and 255.
5. Click Find.
6. Select one or more DX8000 servers to add to the Site tree.
7. Click Add. The site appears in the Connection List.
8. Click OK to return to the Connection List dialog box.

## GROUPING DX8000 SERVERS IN THE CONNECTION LIST

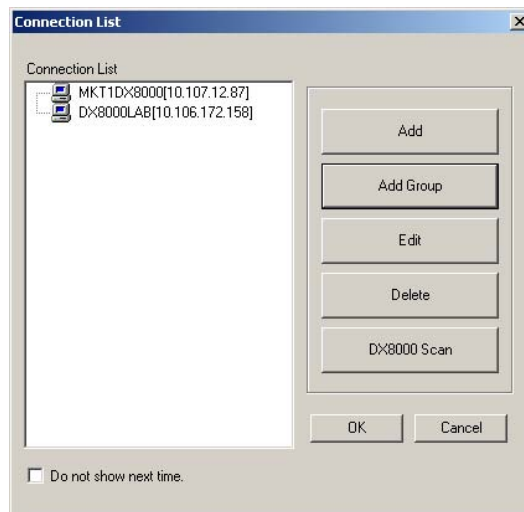
The DX8000 Web Client allows you to group DX8000 servers in the connection list. This section describes how to group DX8000 servers in the connection list and add a DX8000 server with a known/unknown IP address to a group and includes the following topics:

- [Adding a Group to the Connection List](#) on page 284
- [Adding a DX8000 Server with a Known IP Address to a Group](#) on page 285
- [Adding a DX8000 Server with an Unknown IP Address to a Group](#) on page 286

### Adding a Group to the Connection List

To add a group to the connection list:

1. Click . The Connection List dialog box opens.



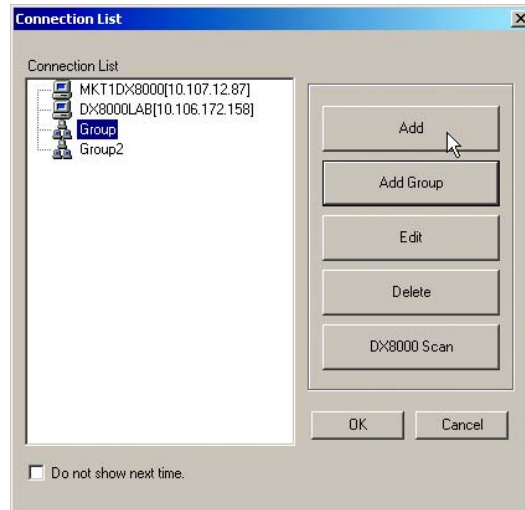
**Figure 206.** Connection List Dialog Box

2. Click Add Group. The Add Group dialog box appears.
3. Enter the name of the group you want to create.
4. Click OK. The group name is added to the connection list.

## Adding a DX8000 Server with a Known IP Address to a Group

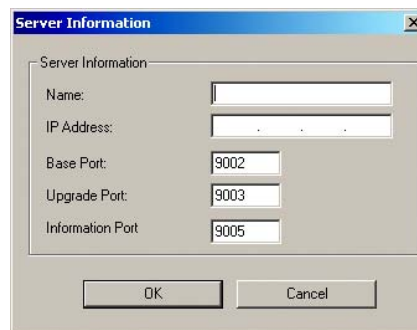
To add a DX8000 server with a known IP address to a group:

1. Click . The Connection List dialog box opens.



**Figure 207.** Connection List Dialog Box

2. Do the following:
  - a. Select a group.
  - b. Click Add. The Server Information dialog box opens.



**Figure 208.** Server Information Dialog Box

3. Enter the name of the DX8000 Series DVR you wish to add to the group.
4. Enter the IP address of the DVR.
5. If necessary enter a new base port number (9002 is the default).


Consult your network administrator before assigning or changing port numbers. Make sure that the ports are not blocked internally but are protected from external threats by a firewall. Web client and server ports must be identical.
6. If necessary, enter a software upgrade port number (9003 is the default).
7. If necessary, in the Information Port box, enter a new information port (9005 is the default).
8. Click OK. The site appears in the Connection List under the group name.

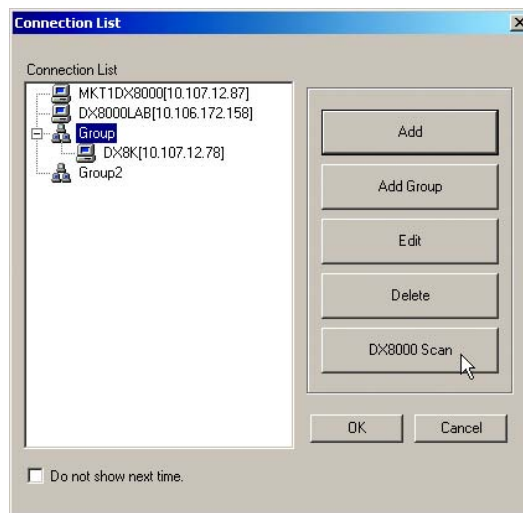
## Adding a DX8000 Server with an Unknown IP Address to a Group

To add a remote DVR site to a group in the Connection List when you do not know the IP address of the site:

**NOTE:** To be successful, the following stipulations must be satisfied:

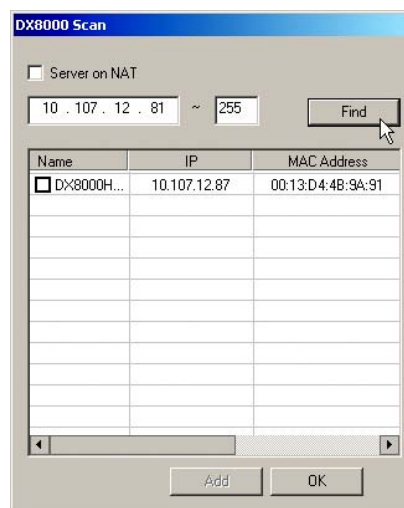
- Each DVR must be attached to the same subnet.
- The first three octets of the IP address of the subnet must be known.
- The range of addresses used in the last octet of the subnet must be known.

1. Click . The Connection List dialog box opens.



**Figure 209.** Connection List Dialog Box

2. Do the following:
  - a. Select a group.
  - b. Click DX8000 Scan. The DX8000 Scan dialog box opens.



**Figure 210.** DX8000 Scan Dialog Box

3. If your server is on Network Address Translation (NAT), click the Server on NAT check box.

4. Enter an IP address range to search for DVR sites.
  - a. Enter the first three octets of the IP range you wish to search; as an example **10.10.1**.
  - b. Enter the beginning value for the search range in the fourth octet; as an example **001**.
  - c. Enter the final value for the search range in the text box provided; as an example **254**.

**NOTE:** Each octet of the IP address must be an integer between 1 and 255.
5. Click Find.
6. Select one or more DX8000 servers to add to the Site tree.
7. Click Add. The site appears under the group name in the Connection List.
8. Click OK to return to the Connection List dialog box.

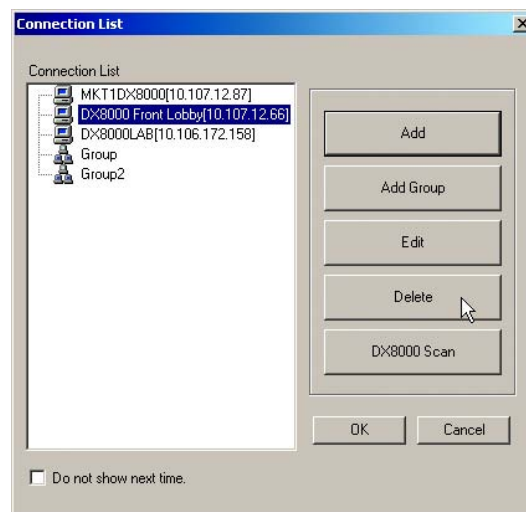
## MODIFYING A CONNECTION LIST

This section describes how to modify the connection list and includes the following topics:

- [Deleting a DX8000 DVR Server from the Connection List](#) on page 287
- [Editing a DX8000 Server's Information in the Connection list](#) on page 288

### Deleting a DX8000 DVR Server from the Connection List


1. Click . The Connection List dialog box opens.

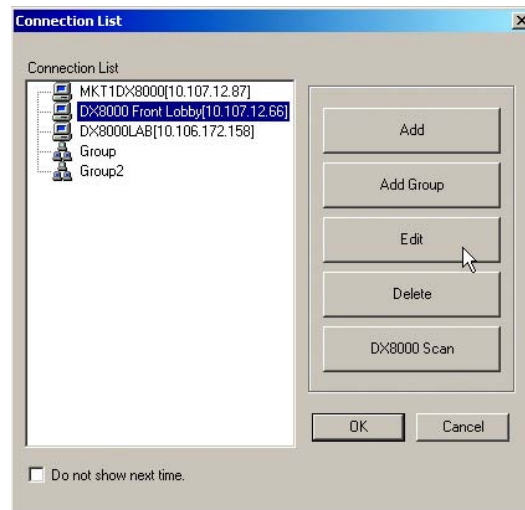


**Figure 211.** Deleting a Site from the Connection List

2. Select the DX8000 Series DVR you wish to delete.
3. Click Delete. The site disappears from the Connection List.
4. Click OK.

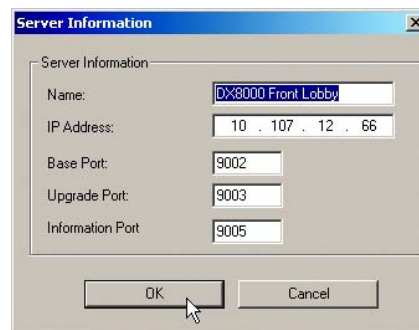
## Editing a DX8000 Server's Information in the Connection list

1. Click . The Connection List dialog box opens.



**Figure 212.** Editing a Site from the Connection List

2. Select the DX8000 Series DVR you wish to edit.
3. Click Edit. The Server Information dialog box appears.



**Figure 213.** Editing Server Information

4. Enter a new name for the server.
5. Enter a new IP address for the server.
6. If necessary enter a new base port number (9002 is the default).  
Consult your network administrator before assigning or changing port numbers. Make sure that the ports are not blocked internally but are protected from external threats by a firewall. Web client and server ports must be identical.
7. If necessary enter a software upgrade port number (9003 is the default).
8. If necessary enter the information port number (9005 is the default).
9. Click OK. The site appears in the Connection List.
10. Click OK to return to the Connection List dialog box.

## WORKING WITH REMOTE SITES

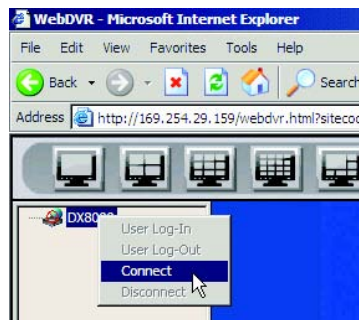
This section describes how to work with remote sites and includes the following topics:

- [Connecting to a Remote Site](#) on page 289
- [Logging In to a Remote Site](#) on page 289
- [Logging Out of a Remote Site](#) on page 290
- [Disconnecting from a Remote Site](#) on page 290

### CONNECTING TO A REMOTE SITE

To connect to an active DX8000 server on the network:

1. Right-click the remote site name from the Site tree.
2. Select Connect from the quick-menu.



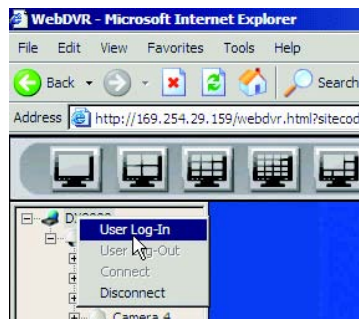
**Figure 214.** Remote Site Connection Quick-Menu

### LOGGING IN TO A REMOTE SITE

After a connection to a remote site has been established, you must log in with a valid user name and password for that site.

To log in to a remote site:

1. Select a remote DX8000 Series DVR site from the Site tree.



**Figure 215.** Selecting a Site

2. Right-click the site name and then select User Log-in from the quick-menu.
3. Enter a user name and password for the remote site.



**Figure 216.** User Log-in Dialog Box

## LOGGING OUT OF A REMOTE SITE

To log out of a remote DVR site, right-click the site name from the Site tree and select User Log-Out from the quick-menu.

## DISCONNECTING FROM A REMOTE SITE

To terminate a connection with a remote DX8000 server:

1. Right-click the name of the remote site from the Site tree.
2. Select Disconnect from the quick-menu.



**Figure 217.** Quick-Menu Disconnect Option

# VIEWING LIVE VIDEO

The DX8000 Web Client allows you to view live video from up to 16 cameras, by dragging one or more cameras from the Site tree onto the view panels. For information about selecting cameras for viewing video, refer to [Assigning Cameras to View Panes](#) on page 50 for instructions.

This section describes how to use the Web Client to view live video, and includes the following topics:








- [Configuring View Panels](#) on page 291
- [Assigning Cameras to View Panels](#) on page 292
- [Operating the On-Screen Pan, Tilt, and Zoom \(PTZ\) Controls](#) on page 293

## CONFIGURING VIEW PANELS

The DX8000 Web Client can display up to 16 cameras simultaneously on a single screen.

To establish the arrangement of view panels on the Web Client screen, select a screen division button from the toolbar. The following table describes the division buttons.

**Table AS. Web Client Division Buttons**

Button	Description
	Display 1 camera.
	Displays 4 cameras at a time (quad display).
	Displays 9 cameras at a time.
	Displays 16 cameras at a time.
	Six-panel display. Divides screen into one large and five small view panels.
	Ten-panel display. Divides screen into two large and eight small view panels.
	Thirteen-panel display. Divides screen into one large and twelve small view panels.

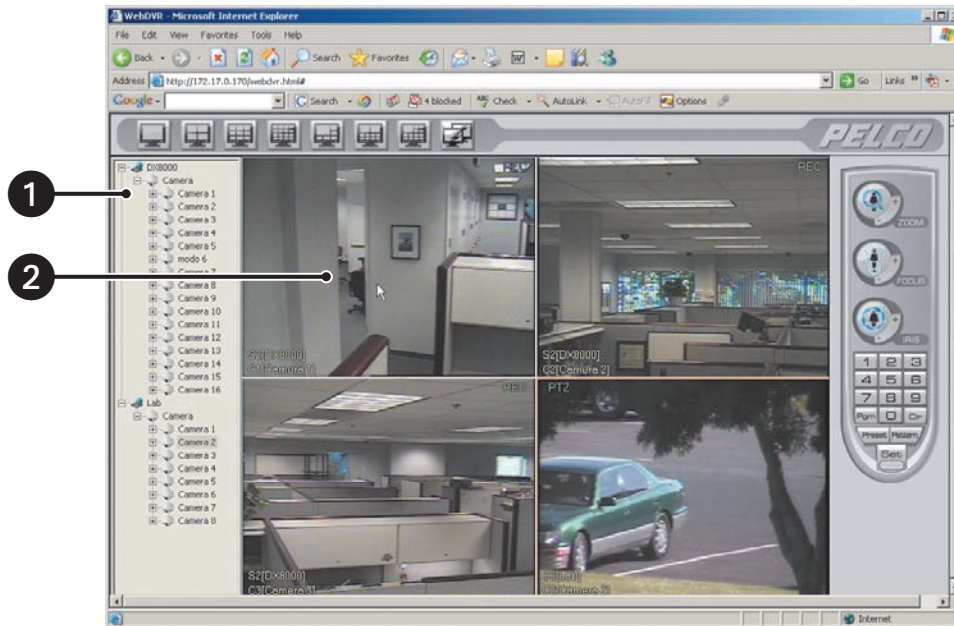


## ASSIGNING CAMERAS TO VIEW PANELS

The DX8000 Web Client includes up to 16 view panels. Each view panel can display a single camera channel from any connected server.

To assign a camera to a view panel:

1. Click the plus sign (+) next to the word Camera on the site you wish to view. This expands the Site tree.
2. Drag a camera from the Site tree onto a view panel.



**Figure 218.** Dragging a Camera to a Web Client View Panel

3. Repeat the process in steps 1-2 for up to 16 cameras from various DVR sites.

When changing from one screen division to another you must reassign cameras to view panels.

## OPERATING THE ON-SCREEN PAN, TILT, AND ZOOM (PTZ) CONTROLS

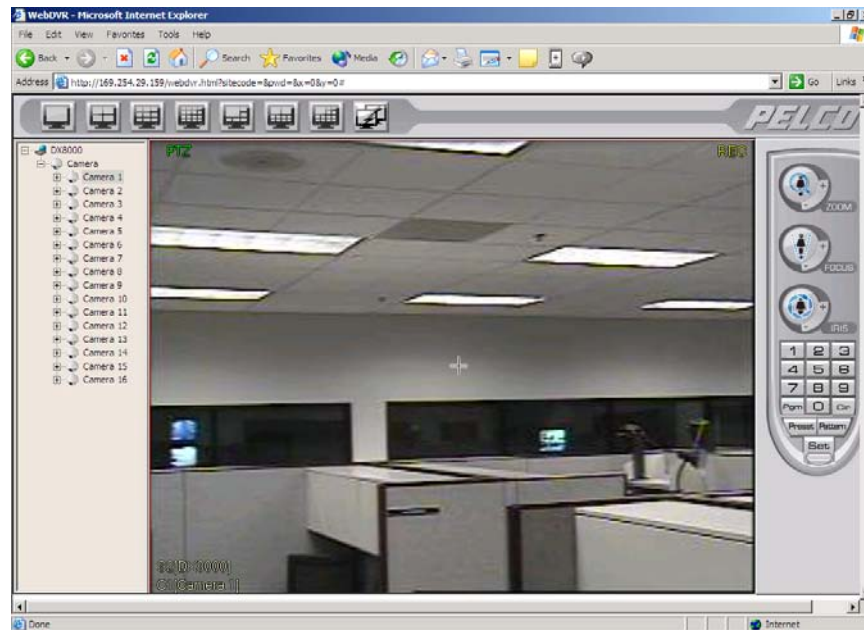
The on-screen PTZ control allows users to manipulate the positioning and lens features of cameras using a mouse. This section describes how to use the PTZ controls and includes the following topics:

- [Operating PTZ Controls](#) on page 293
- [PTZ Presets](#) on page 294
- [Programming a Preset](#) on page 294
- [Activating a Preset](#) on page 296
- [Clearing a Preset](#) on page 297

### Operating PTZ Controls

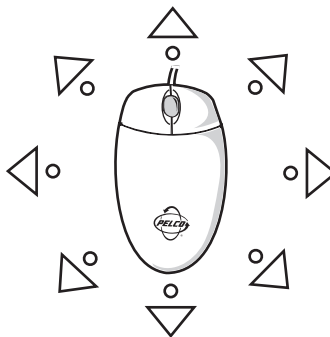
To operate the on-screen PTZ controls:

1. Place the mouse pointer in the middle of a camera view panel.



**Figure 219.** Web Client On-Screen PTZ

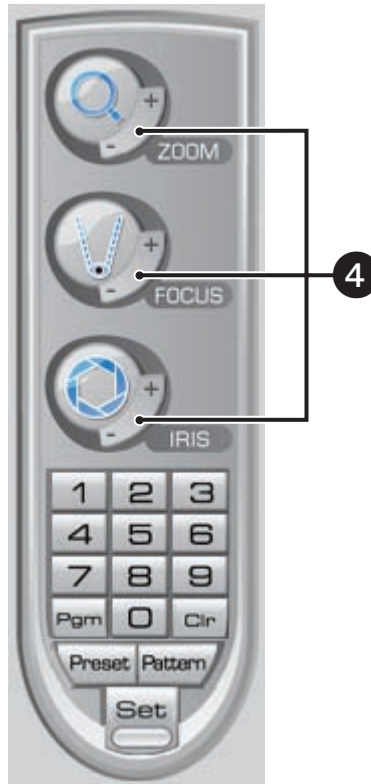
2. Click the left mouse button, and then drag the mouse pointer in the direction you wish to move the camera. [Figure 266](#) illustrates the range of motion possibilities for the on-screen PTZ control.



**Figure 220.** On-Screen PTZ Movement

3. Release the mouse button when you have moved the camera to the desired position.

4. To adjust camera lens features, click the plus (+) or minus (-) buttons next to each function on the keypad. Refer to the following figure.




**Figure 221.** Web Client PTZ Lens Controls

### **PTZ Presets**

A preset is a user-defined camera position using pan and tilt, zoom, and focus commands. A DX8000 Series DVR can address up to 128 PTZ presets (1-32). Preset 95 is reserved for remote camera setup, and preset 99 is reserved for camera autoscan mode.

Only cameras that support positioning and programming using D, P, or Coaxitron protocols can use this feature.


**NOTE:** Observe the use of the  icon for presets, preset tours, and patterns as follows:

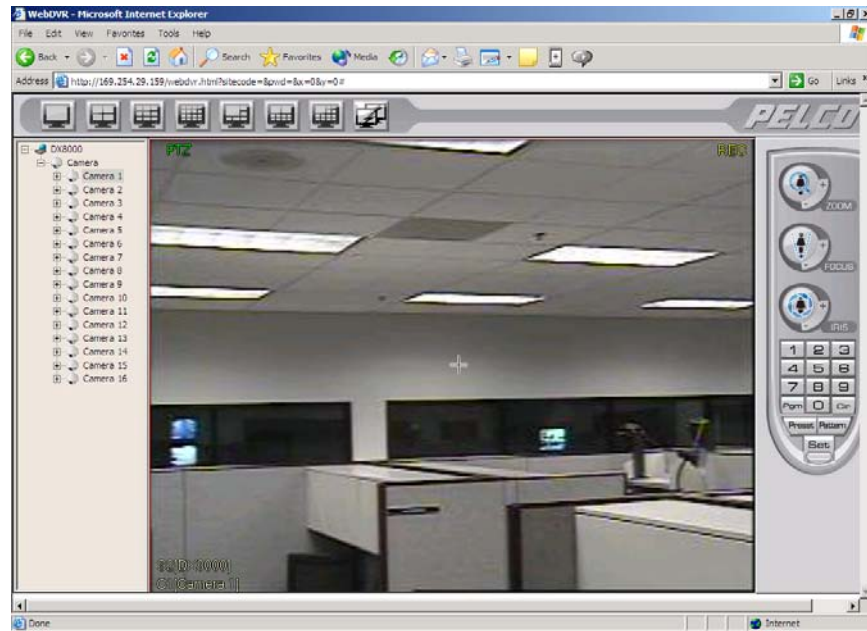
- To program or clear presets, preset tours, and patterns, the Set icon must be engaged.
- To activate presets, tours, and patterns, the Set icon must be disengaged.

### **Programming a Preset**

Clicking the  icon places DX8000 in PTZ programming mode. While in PTZ programming mode, multiple presets can be programmed until the  icon is pressed again.

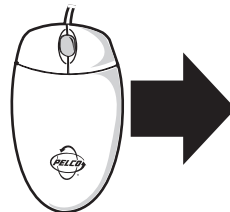
To program a PTZ preset:

1. Drag a camera from the Site tree onto a view panel.
2. Click .



**Figure 222.** Web View and PTZ Control Panel

3. Using the on-screen PTZ controls and PTZ keypad, move the camera to the desired position and adjust zoom and iris settings.





**Figure 223.** Moving to a Preset Using Web Client

- Using the PTZ keypad, select a number for the new preset (for example, 1).




**Figure 224.** Programming a Preset Using Web Client

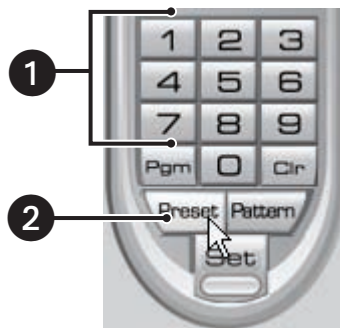
- Click  to store the preset in the selected memory location.
- Repeat steps 4-6 for each preset you want to program.
- Click  again to exit programming mode.

### **Activating a Preset**

To activate a preset:

- Click a preset number (1-32) on the keypad.
- Click  to activate preset. The camera repositions to the new preset.




Double-digit presets can be set or activated by pressing the first digit and then the second digit sequentially. For example, preset 20 can be selected by clicking the number 2 and then the number 0 on the PTZ keypad.

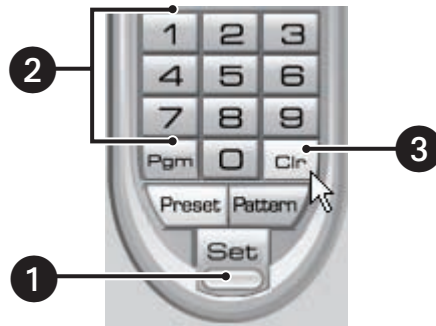


**Figure 225.** Activating a Preset Using Web Client

## Clearing a Preset

To clear a preset:

1. Click  to enter programming mode.
2. Click the number of the preset you want to clear from the PTZ keypad.
3. Click .
4. Repeat steps 2 and 3 to clear multiple presets.
5. Click  to exit programming mode.



**Figure 226.** Clearing a Preset Using Web Client

## PTZ PATTERNS

A pattern is a user-defined, viewable camera path with a definite beginning and end. Patterns are made up of a sequence of standard pan, tilt, and lens commands. Patterns are stored in the internal memory of the PTZ device, such as a Spectra dome, that is connected to the DX8000. Depending on the type and configuration of the PTZ device, the DX8000 can address up to four unique PTZ patterns. Once defined, a pattern can be activated with a series of on-screen commands. A pattern will run continuously until it is deactivated.



Only PTZ-enabled cameras that support pattern programming through D, P, or Coaxitron protocols can use this feature.

This section describes how work with patterns and includes the following topics:

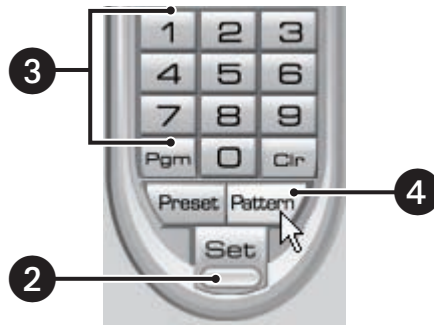
- [Programming a Pattern](#) on page 297
- [Activating a Pattern](#) on page 298
- [Clearing a Pattern](#) on page 298
- [Accessing Programming Features of Remote Cameras](#) on page 299

## Programming a Pattern

To program a pattern:



1. Drag a camera from the Site tree onto a view panel.
2. Click  to enter programming mode.
3. Using the PTZ keypad, select a number for the pattern (1 to 4).
4. Click .
5. Move the camera through a series of movements using the on-screen pan and tilt, zoom, and focus controls.

Certain PTZ devices, like Pelco's Spectra Series domes, will display an on-screen message stating the amount of remaining memory available for pattern programming.




**Figure 227.** Programming a Pattern Using Web Client

To stop programming a pattern:

1. Click .
2. Click .

### **Activating a Pattern**

To activate a pattern:

1. Click a pattern number (1 to 4) on the keypad.
2. Click .






A pattern will repeat indefinitely until it is cleared, another pattern is set, or the on-screen PTZ control is moved.



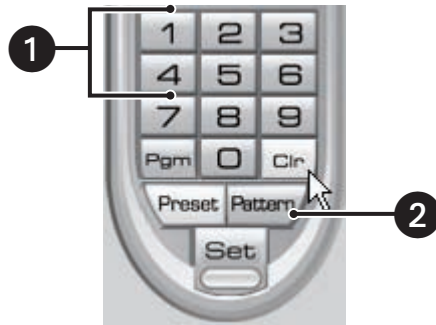
**Figure 228.** Activating a Pattern Using Web Client

### **Clearing a Pattern**

To clear a pattern:

1. Click  to enter programming mode.
2. Select a pattern number (1 to 4) on the keypad.
3. Click .
4. Click .
5. Click  again.
6. Click  again to exit programming mode.





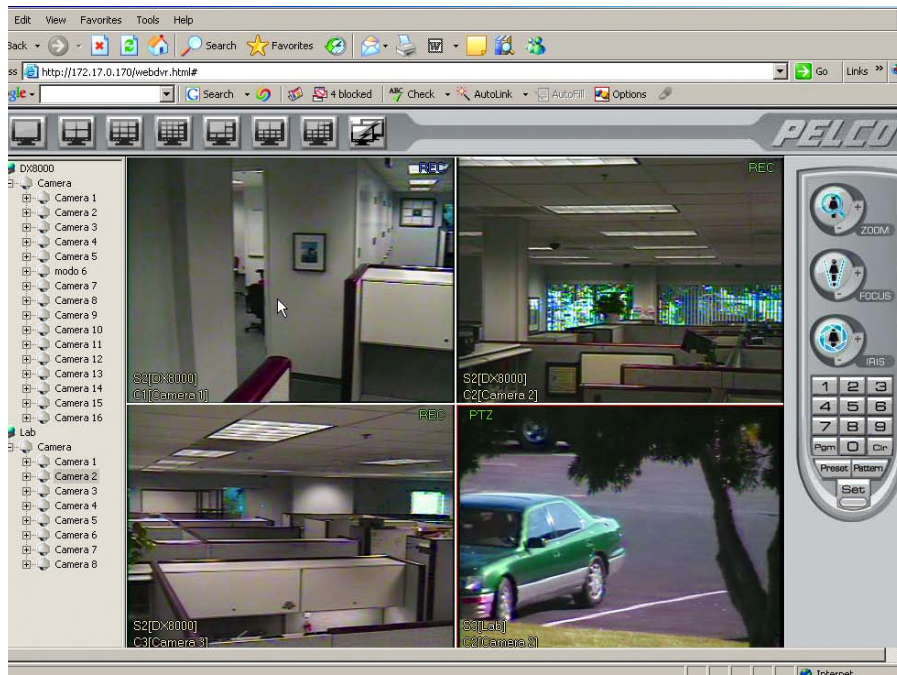
**Figure 229.** Clearing a Pattern Using Web Client

## Accessing Programming Features of Remote Cameras

You can use the PTZ function to program features of remote cameras, such as Pelco's Spectra III. Only cameras that support remote programming through D, P, or Coaxitron protocols can use this feature.

To access a programming menu for a remote camera:

1. Drag a camera from the Site tree onto a view panel.



**Figure 230.** Web Client View Panels

2. Click **Pgm** from the keypad to access remote camera setup mode.

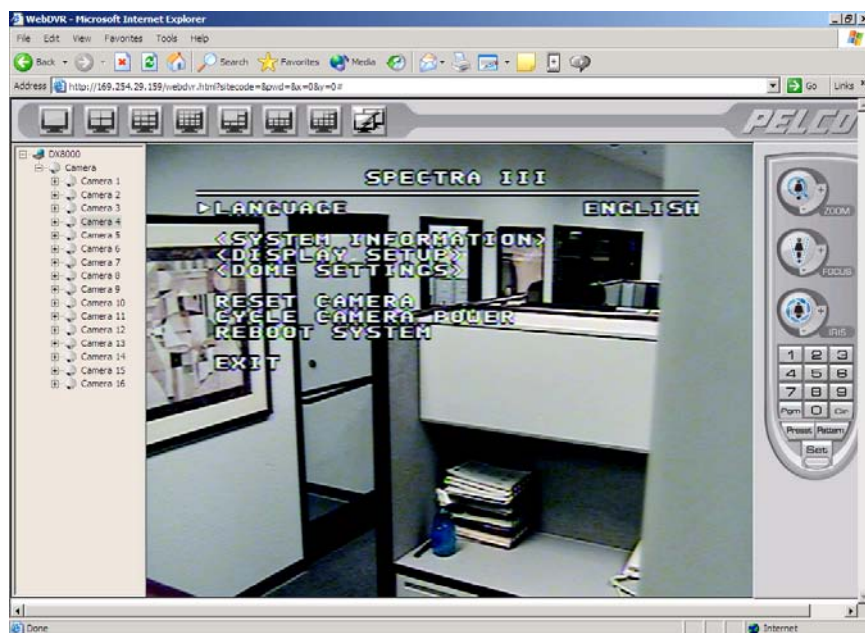
For certain camera models, you can also select preset number 95 from the keypad to access remote setup mode. To access preset number 95, click **Set**, 9, 5, and **Preset** from the PTZ keypad.





**Figure 231.** PTZ Control Panel Using Web Client

3. Use the on-screen PTZ controls or the focus (+) and focus (-) buttons to navigate up and down camera menu choices.



**Figure 232.** Camera Setup Menu

4. Click the iris (+) button to select an option from the camera's on-screen menu.
5. Click the iris (-) button to cancel an option or exit a menu.

You can also use the on-screen PTZ controls with your mouse to navigate camera menus. Click and drag the mouse up or down to move between menu options and then select the option using the iris (+) button.



# Index

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## A

### accounts

- access levels, definition of 153
- built-in user accounts 153
- camera security access 154

### administrator

- accessing the setup mode 108
- changing PC client application default password 21
- changing port numbers 22
- DirectDraw, enabling 21
- setup options 108

### alarm event

- emergency notification 130
- recording mode, setting up 130

### alarm inputs

- linking a single alarm input to multiple cameras 41
- linking multiple alarms to one camera 41
- removing a linked alarm input from a camera 42
- setting up
  - alarm input, selecting 118
  - alarm output type, selecting 118
  - basic operating properties 118
  - creating custom name for 118
- supported 117

### area, viewing

- pane 28, 34
- panel 28, 34

### ATM/POS event

- ATM/POS address, selecting 120
- ATM/POS recording mode, setting up 130
- linking relay to 120

### ATM/POS exceptions

- overview 84, 90

### audio 114

### audio indicator 46

### auxiliary feature

- external equipment 62
- how used 62
- protocols, supported 62

## B

### backed up data

- viewing 106, 149

## C

### calendar

- See schedule

### camera

- alarm input, linking to camera 41

assigning all cameras to view panes 40

assigning to a view pane 40, 43

audio 114

D, P, or Coaxitron protocol support 54

event detection/repositioning--PTZ preset/patterns linked to

alarm events 125

ATM/POS events 126

motion events 124

video loss events 127

external event recording

alarm event, linking multiple cameras to record 122

ATM/POS event, linking multiple cameras to record 123

motion event, linking multiple cameras to record 122

video loss event, linking multiple cameras to record 123

motion detection zones 113

PC keyboard, using shortcuts to operate PTZ and lens

functions 53

PTZ protocols 111

Coaxitron, DX8000PELCO-C

D protocol, DX8000PELCO-D

disable protocol, DX8000NO PTZ

P protocol, DX8000PELCO-P

recording modes 129

relay, linking to camera 41

remote setup using preset 95 54

remote, accessing programming features 59

scheduled recording mode, setting up 130

security levels 111

high

low

medium

none

settings

custom settings, examples of 140

customizing 129, 139

support for recording modes 140

supported for recording modes 139

settings, customizing 139

setup

applying settings to all cameras 117

audio 114

communications protocol 111

enabling/disabling camera 111

motion detection zones 113

name, customizing 111

pan, tilt, and zoom 111

picture 111

picture properties 112

PTZ locking auto-timeout 111

PTZ protocol 111

security level 111

security level, selecting 111

video loss detection 116

single, assigning to view pane 40

- zoom, adjusting 52
- camera designator 46
- camera event detection and repositioning
  - overview 124
- camera, removing a linked alarm input 42
- channel resolution 129
- Coaxitron protocol 54
- commands
  - auxiliary, sending 62
- compression, video 140
- connecting DX8000 DVRs 108
- connection list
  - adding servers to 22
  - adding site with unknown IP address 23
  - adding sites with know IP address 22
  - deleting a DX8000 server 24
  - editing DX8000 server information 24

## D

- D protocol 54
- designators
  - camera 46
  - site 46
- digital zoom control 29
- DirectDraw
  - enabling 21
  - hardware acceleration 21
- disk space 29
- disk status indicator 29
- display mode
  - Live video 34
  - playback video 34
  - See pane/panel
- DX8000
  - command descriptions 30
  - overview of application window 27
- DX8000 application window
  - panels 34
  - panes 34
- DX8000, setting up 108

## E

- e-mail notification
  - overview 175
  - sending to groups 176
  - sending to individuals 175
  - video loss event, sending in response to 116
- e-mail server 166
- emergency agent notification 116
  - accessing Emergency Agent Setup page 163

- camera, linking to client emergency agents 164
- clients
  - adding 163
  - changing emergency agent properties 164
  - deleting from notification list 164
- Emergency Agent Client utility, required 163
- overview 163
- server event transmission time, setting 165
- emergency e-mail notification
  - accessing Emergency E-mail Notification page 166
  - alarm 166
  - alarm events, sent in response to 170
  - e-mail groups 166
  - e-mail server, configuring 167
  - enabling/disabling 166
  - group
    - adding 171
    - adding members 172
    - deleting 172
    - deleting members from group 173
    - modifying 172
    - modifying member attributes 174
    - overview 171
  - local area network (LAN), 166
  - motion events, sent in response to 170
  - overview 166
  - setting up 166
  - testing configuration 168
  - time period
    - notification frequency, setting up 169
    - overview 169
    - setting the time of day 169
  - video loss events, sent in response to 171
- events
  - alarm 117
  - ATM/POS 119
  - motion detection 113
  - recording modes 130
  - video loss detection 116
- export setup 30
- Ext. monitor
  - overview 163
- external events 119

## F

- file size
  - video image 140
- frame rate
  - about calculating 144
  - advanced, configuring 142
  - basic, configuring 141
  - maximum, setting 143
  - overview 129, 141
  - range of 141

resolution value 142

## G

graphics card 21

## H

hardware

DX8000-AUD audio card 114

external equipment 62

## I

import setup 30

index view panel 29

indicators

audio 46

camera 46

instant recording 46

on-screen PTZ control 46

pan, tilt, and zoom 46

record 46

site 46

instant recording indicator 46

instant recording mode 47

IPSec

disabling 19

enabling 19

network communications, required 19

## L

language

supported 31

English (default)

French

German

Italian

Polish

Portuguese

Russian

Spanish

linking

alarm input, removing from camera 42

alarm inputs, linking to cameras 41

link setup options 117

event-PTZ link settings

event-recording link settings

event-relay link settings

relay and alarm settings

relays, linking to cameras 41

removing 42

setting up 40

linking and event recording setup 117

live audio 31, 46, 114

Live View mode 59

local area network (LAN) 166

## M

menu bar 28

menus

Edit 30

Export 32

Favorite 32

File 30

file 29

Help 32

View 30

menus, shortcut

local site 39

relay 40

remote site 40

mode

instant record, starting 49

instant record, starting and stopping 48

instant record, stopping 49

instant recording 47

live recording 49

Live View mode, working in 59

live view, working in 43

normal recording 47

recording modes, scheduled 129

*See* recording mode

motion

detection of 119, 130

*See also* relays

detection zones 113

emergency e-mail notification 166

emergency notification 163

motion event recording mode, setting up 130

multiple event recording 130

## N

National Television System Committee (NTSC) 141

network requirements

DX8000 attached to same subnet 23

IPSec 17, 19

normal recording mode 47

notification

e-mail 116

emergency agent 116

Notification page 163

## O

on-screen display

- add instant record icon to OSD 48
- customizing 47
- overview 31, 46
- selections 47
  - Audio Recording
  - Background Color
  - Camera Name
  - Instant Recording
  - POS
  - PTZ
  - Select All
  - Site Name
  - Video Recording
- operating modes
  - function 34
    - Display
    - Search
    - Setup
  - instant record, starting and stopping 48
  - instant recording 47
  - live recording 49
- overriding other users 108

## P

- P protocol 54
- pan, tilt, and zoom (PTZ) control panel 28
- pan, tilt, and zoom control
  - enabling 46
  - focus command, using 54
  - operating 49
  - preset, programming 54
  - programming guidelines 54
- pan, tilt, and zoom indicator 46
- pane/panel
  - channel/camera assignment to 35
  - configuring 35
  - division display format 35
  - division, selection of 35
  - hidden panels, automatically cycling through 37
  - hidden panels, manually cycling through 37
  - live/playback video, display of 28
  - navigating between 35
  - overview 34
  - pane, expanding and collapsing 37
  - site name displayed in 31
  - video, viewing 109
- pattern
  - activating 54, 56, 58
  - clearing 54, 58
  - overview 56
  - programming 54, 57
  - programming, starting 57
  - programming, stopping 57
  - protocols, PTZ-enabled cameras 56

- PC client application
  - automatic system upgrade 20
  - changing default client password 21
  - changing default password 21
  - getting started with 16
  - how to run 20
  - installing 17
  - IPSec security services 20
  - license agreement 18
  - logging into 21
  - requirements 20
  - starting 20
  - system requirements 16
  - viewing backed up data, required 149
  - viewing backed up data, requirement 149
  - viewing remote DX8000 servers 16
  - working with 22

- Phase Alternating Line (PAL) 141

- playback control panel 29

- playback timeline 29

- port
  - blocked internally 22
  - changing port number 22
  - PC client and server matching 22

- preset
  - activating 54, 55
  - clearing 54, 56
  - guidelines 54
  - Preset 95 54
  - Preset 99 54
  - programming 54

- preset tour
  - accessing a preset tour group 63
  - adding presets to a tour 63, 64
  - configuring 63
  - delete presets from a tour 63
  - deleting presets from a tour 65
  - programming 63

- protocols
  - D, P, Coaxitron 54

- PTZ OSD menu control 59

- PTZ presets and patterns
  - alarm events, linking to 125
  - ATM/POS events, linking to 126
  - motion events, linking to 124
  - video loss events, linking to 127

## R

- record indicator 46

- recording mode
  - alarm, camera settings supported
    - alarm image quality 140
    - frame rate during alarm 140

- image resolution 140
- post-motion 140
- pre-alarm 140
- pre-alarm frame rate 140
- pre-alarm image quality 140
- ATM/POS, camera settings supported
  - ATM/POS image quality 140
  - frame rate during ATM/POS 140
  - image resolution 140
  - post-ATM/POS 140
  - pre-ATM/POS 140
  - pre-ATM/POS frame rate 140
  - pre-ATM/POS image quality 140
- instant 47
- instant, disabling 48
- instant, enabling 48
- motion, camera settings supported
  - frame rate during motion 140
  - image resolution 140
  - motion image quality 140
  - post-motion 140
  - pre-motion 140
  - pre-motion frame rate 140
  - pre-motion image quality 140
- normal 47
- normal, camera settings supported
  - frame rate 140
  - image quality 140
  - image resolution 140
- recording schedule profile 129
- scheduled modes 129, 130
  - alarm
  - ATM/POS
  - motion
  - normal
- recording modes 130
- recording schedule 128
- relays
  - Event-Relay Link Settings page, accessing 119
  - linked relay output
    - removing from a camera 42
    - removing from an alarm input 42
  - manually turning On and Off 40
  - multiple relays, linking to one camera 41
  - relay output
    - alarm event, linking to 41, 120
    - ATM/POS event, linking to 120
    - motion event, linking to 119
    - number supported 117
    - video loss event, linking to 121
- setting up
  - advanced relay output 144
  - basic operating properties 118
  - creating custom name for 118
  - relay output type, selecting 118
  - relay, selecting 118

- single relay, linking to multiple cameras 41
- remote camera
  - menu system, navigating using
    - Keypad controls 59, 60
    - PC keyboard keys 59, 60
    - PTZ OSD menu control 59
    - PTZ OSD menu controls 59, 60
  - programming features, accessing 59
  - protocol support 59
- remote site
  - logging into 25
  - overview 157
- remote sites
  - overview 157
- resolution
  - resolution value, setting for recording 142
  - screen 31

## S

- schedule
  - accessing 128
  - all record modes, clearing schedule 132
  - clearing a recording schedule 131
  - copying attributes 133, 136
  - custom settings 129
  - deleting a schedule 138
  - editing a profile 137
  - individual days, scheduling 133
  - multi-day schedule, creating 134
  - record mode 128
  - setting up 130
  - single day, creating 135
  - types of 129
  - yearly recording schedule, creating 132
- screen resolution 31
- search mode 34
- security protocols
  - IPSec 17
- server properties
  - changing base port default value 24
  - changing upgrade port default value 24
- server sites 22
  - connecting to DX8000 server sites 22, 157
- server, e-mail 166
- Setup dialog box 108
- setup mode
  - accessing 108
  - alarm properties, setting up 118
    - See also* alarm inputs
  - camera setup 111, 139
    - See also* camera
  - commands, listing of 110
    - Backup

- Camera
- Ext. Monitor
- Linking
- Network
- Notification
- Schedule
- Site
- System
- User
- how to open Setup dialog box 34
- multiple cameras
  - alarm events, linking cameras to record 122
  - ATM/POS events, linking cameras to record 123
  - motion events, linking cameras to record 122
  - video loss events, linking cameras to record 123
- overview 108
- PTZ presets and patterns
  - alarm events, linking to 125
  - ATM/POS events, linking to 126
  - linking to external events 124
  - motion events, linking to 124
  - video loss events, linking to 127
- relay output
  - advanced alarm-activated, configuring 146
  - advanced ATM/POS-activated, configuring 147
  - advanced motion-activated, configuring 145
  - advanced video loss-activated, configuring 148
  - alarm event (external), linking to 120
  - ATM/POS event (external), linking to 120
  - motion event (external), linking to 119
  - See also* relays
  - video loss event (external), linking to 121
- relay properties, setting up 118
  - See also* relays
- schedule setup
  - frame rate, basic, configuring 141
  - frame rate, configuring 141
  - record mode 128, 130
- system setup 158
- user access 151
- setup pages
  - Camera page 109
  - Linking page 117
  - Schedule page 128
  - Site page 157
  - System page 158
  - User page 151
- shortcut keys
  - PC keyboard 53
    - Home and End
    - Insert and Delete
    - Left and Right Arrow
    - Page Up and Page Down
    - Plus (+) and Minus (-)
    - Up and Down arrow
  - using to operate PTZ and lens functions 52, 53

- shortcut menus
  - local site shortcut menu 39
  - relay shortcut menu 40
  - remote site shortcut menu 40
- site designator 46
- site tree
  - all cameras, assigning from 40
  - how organized 28
  - local, expanding and collapsing 39
  - overview 39
  - remote, expanding and collapsing 40
  - single camera, assigning from 40
- software
  - installing on PC client 21
  - license agreement 18
  - PC client 16
  - upgrade port number 22
    - port 22
- status bar 29
- synchronization, loss of 116
- system setup
  - accessing the System page 158
  - DVR settings
    - exporting 158
    - importing 160
  - Edit menu
    - exporting from 159
    - importing from 160
  - export feature 158
  - import feature 160
  - log files
    - exporting 162
    - overview 161
    - viewing a log file 161
  - overview 158

## T

- title bar 28
- toolbar 28, 33
- tour, preset 54, 63
- transaction filter, predefined 84, 90

## U

- upgrade port 22
- user security level 151
  - accessing remote sites 26
  - accessing user setup page 151
  - Administrator 108, 153
  - camera security access 154
  - dwelling time, changing 37
  - DX8000, accessing 108
  - pan, tilt, and zoom control, operating 49
  - Power User 47, 108, 153



- Restricted User 37, 152, 153
- Standard User account 29, 153
- user access levels 153
- user accounts
  - adding new users 154
  - existing users, deleting 156
  - log-in timeout, setting 156
  - modifying 155
  - password, changing 155
  - user's group affiliation, changing 156
- user accounts, default 153

## V

- video
  - live, viewing 27
- video compression 140
- video loss
  - detection of 116
  - emergency notification 163
  - relay output, linking to 121
  - synchronization, loss of 116
  - video level, low 116
- video, low level 116
- view
  - cycle view setup 31
  - pane/panel. *See* pane/panel
  - viewing area. *See* pane/panel

## W

- wildcard character 91
- wildcard, character 91
- wiper, operating 62

## Z

- zones, motion detection 113
- zoom, adjusting camera 52



## PRODUCT WARRANTY AND RETURN INFORMATION

### WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FR/FT/FS Series fiber optic products and TW3000 Series unshielded twisted pair transmission products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Three years on PMCL200/300/400 Series LCD monitors.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Two years (except lamp and color wheel) on Digital Light Processing (DLP®) displays. The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800)289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

### RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

*If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:*

Service Department  
Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699

*If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:*

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors  
473 Eccles Avenue  
South San Francisco, CA 94080 USA  
Phone: 650-737-1700  
Fax: 650-737-0933

### REVISION HISTORY

Manual #	Date	Comments
C626M	3/04	Original version.
C626M-A	12/04	Added information about cursor control keys, export function, enabling/disabling instant record, multilanguage support, and backup feature.
C626M-B	3/05	Revised the web client installation procedure.
C626M-C	5/06	Added new features: KBD300A keyboard support, third-party dome support, ATM/POS scheduled recording, 36-camera view, online Help, ATM/POS interface support, making up to 100 simultaneous client-to-server connections, instant playback, quick menu to turn relays, on/off, live audio over the network, and video loss event linked to an alarm.

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